
State Aid in Life Sciences in Switzerland

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1. What Is the Size of the Market and What Are Current Trends in Switzerland?

Life Sciences is one of the most dynamic and most rapidly growing sectors in Switzerland with respect to both the industrial and the academic dimension. In 2013, the total financing volume amassed by Swiss biotech companies more than doubled compared to the previous year's figure, reaching USD 325 million, which amounts to an increase of 112%.¹ According to the Swiss Life Sciences Database, Switzerland is currently host to over 1,800 highly diversified Life Sciences companies.² The country boasts a well-functioning market and a business-friendly environment for almost all types of investments while providing an extraordinarily high quality of life. This is also evidenced by the fact that the country constantly achieves top positions in major international economic rankings. For example, it currently ranks number 5 on the 2015 Index of Economic Freedom of The Heritage Foundation³ and number 3 on the UN Human Development Index⁴.

The Basel area alone belongs beyond doubt to the prime locations for the Life Sciences industry in the world. As such, it has attracted approximately 900 Life Sciences companies achieving an annual turnover of USD 100 billion and an annual profit of around USD 20 billion. With approximately 10,000 researchers employed in the respective companies today plus 5,000 academics (professors, researchers, Ph.D. students, etc.) and annual investments in research and development in the amount of USD 1.4 billion, the area provides a huge potential and an inexhaustible source of know-how in Life Sciences.⁵

¹ See Swiss Life Sciences Trend Analysis 2014, available at: <http://resourcecenter.biotechgate.com/2014/09/swiss-life-sciences-trend-analysis-2014/>

² See http://www.swisslifesciences.com/swiss/portal/search_companies.php. The Swiss Life Sciences Database is an information platform comprising data of Life Sciences companies and institutes in Switzerland.

³ See <http://www.heritage.org/index/>.

⁴ See <http://hdr.undp.org/en/content/table-1-human-development-index-and-its-components>.

⁵ See BaselArea, World's Finest Place for Success in Life Sciences, p. 7.

Despite the modern use of the term “Life Sciences” describing a specific business sector, Switzerland can claim a long tradition – dating back to the middle of the 19th century – of well-established companies having expertise in Life Sciences-related areas, especially in the chemical and pharmaceutical industry. With Novartis (former Ciba-Geigy and Sandoz), Roche and Lonza – to name just a few companies – Switzerland hosts some of the biggest and oldest global players in the pharmaceutical industry. The chemical industry is further represented by companies such as Clariant, the medical technology by Straumann and the agribusiness by Syngenta. In addition to these multinationals headquartered in Switzerland, many young companies have emerged with special competences in bioinformatics, development of antibodies or nanoinstruments; not to mention the fact that most of the major global players in the Life Sciences sectors operate subsidiaries in Switzerland.

Industrial companies tend to settle in one of the big clusters in Zurich, Basel or the Lake Geneva area, with Basel being the most prominent one for the Life Sciences business. While each of these clusters has a slightly different focus, all of them are rich in resources essential for successful Life Sciences business as they provide highly skilled researchers and personnel, consultants and patent lawyers, investors, suppliers, industry partners, office and laboratory space, international transport connections and IT infrastructure.

The value of the clusters is further enhanced by the presence of specialised research institutes such as the Basel Institute of Immunology and the Friedrich Miescher Institute for Biomedical Research (part of the Novartis Research Foundation). Such institutions work side by side with leading international universities such as the ETH Zurich and Lausanne (Federal Institute of Technology) and the Universities of Zurich, Basel and Geneva. Apart from providing enormous research facilities and an inexhaustible recruiting pool of young research talents, universities seek to actively contribute to the development of the Life Sciences sector. By way of example, “Life Science Zurich”, a platform managed by Zurich University and ETH Zurich, intends to establish business networks for universities, the industry and the public sector and to enhance dialogue and cooperation between these sectors.

In addition, players in Life Sciences clusters tend to organise themselves by way of associations or centres of excellence, the most notable among which are “Basel Area”⁶, “Greater Zurich Area”⁷ and “BioAlps”⁸ (covering Western Switzerland, especially the Lake Geneva area). Being of considerable importance for all kinds of Life Sciences businesses, such bodies not only promote the respective Swiss regions as centres for Life Sciences, but also

⁶ <http://www.baselarea.ch/en.html>.

⁷ <http://www.greaterzuricharea.com/en/>.

⁸ <http://www.bioalps.org/>.

foster the growth of this industrial sector in general. They do so by providing, amongst other things, networks and exchange platforms for both start-ups and well established large Life Sciences companies and by connecting them to research and academic institutions.

2. What Kind of State Aid Schemes for Life Sciences Exist in Switzerland?

As an established approach in Swiss politics, the division of tasks between the private and the public sector in the field of research and innovation is based on two pillars: the principle of subsidiarity and a liberal economy. Thus, the government becomes only active in areas where it is constitutionally authorised to do so. Under the Research and Innovation Promotion Act (RIPA), the Swiss government is responsible for providing grant funding for research and innovation through the Swiss National Science Foundation (SNSF) and the Commission for Technology and Innovation (CTI).

2.1. Swiss National Science Foundation (SNSF)

SNSF is mandated to fund basic research and promote young scientists in Switzerland. In 2013, SNSF supported projects in biology and medicine by grants totalling approx. USD 160 million (out of USD 400 million total funds), which is the largest sum compared to the other research areas.⁹ Furthermore, SNSF spent approx. USD 130 million (the second largest amount) on mathematics and natural and engineering sciences.

2.2. Sponsoring by the Commission for Technology and Innovation (CTI)

CTI acts as the Swiss government's decision-making body for all matters pertaining to the promotion of innovation. Most notably from the viewpoint of private research activities and start-up companies is the fact that "CTI Life Sciences" sponsors projects in applied research and development. While a particular focus is laid on the research areas of medical technology and biotechnology, areas such as food technology, environmental protection and plant cultivation prove to be of increasing importance.

Every year a team of experts examines well over 100 grant applications for projects, originating from centres of higher education and companies. Decisive factors for obtaining

⁹ The other areas being humanities and social sciences, mathematics, natural and engineering sciences and interdisciplinary research.

funding are the innovative content of a project and its market potential. Grants are thus regularly awarded to projects promising knowledge generation and wealth creation. CTI's sponsoring activities also aim at establishing Switzerland as a business and research location that is favorable to investment and at further increasing the country's competitiveness.¹⁰

2.3. Start-up Coaching by the Commission for Technology and Innovation (CTI)

In addition to its sponsoring activities, CTI promotes corporate business in a targeted and performance-oriented manner. It offers support to promising start-ups and small and medium-sized enterprises (SME) with respect to what it calls the key elements of successful business: know-how, staying power, financial resources and a professional team. In particular, CTI's programme consists of:

- coaching and training sessions by involving business coaches and experts from various fields for the early stage of venture, which ultimately leads the company to obtaining the CTI Start-up Label;
- the transfer of knowledge and technology between research institutions and the industry, especially through professionally run National Thematic Networks (NTN). NTN also assist innovative companies and researchers in developing their potential by way of accessing international programmes and networks, such as EUREKA, ERANet and EU-FP7 and the European Technology Platforms (ETP).¹¹

2.4. International Programmes

Moreover, the Swiss government participates in the following international programmes:

- *European Cooperation in the field of Scientific and Technical Research (COST)*. While COST does not fund research itself, it supports cooperation among nationally funded scientists and researchers across Europe carried out within so-called COST Actions. Swiss researchers may either run projects as part of existing COST Actions or launch their own Actions.

¹⁰ For more information see: <https://www.kti.admin.ch/kti/en/home/ueber-uns/foerderbereiche/f-e-projektfoerderung.html>.

¹¹ For more information see: <https://www.kti.admin.ch/kti/en/home/unsere-foerderangebote/fuer-start-ups.html>.

In Switzerland, the State Secretariat for Education and Research (SER) manages COST credits and is responsible for the respective coordination.¹²

- *Human Frontier Science Program Organization:* HFSP funds cutting edge and interdisciplinary basic research with a focus on the complex mechanisms of living organisms. Topics range from molecular and cellular approaches to cognitive neuroscience and interactions between organisms. Financial support is especially given to projects of collaborative networks of scientists of different countries. The focus is also laid on novel collaborations connecting biologists and scientists from other fields (physics, mathematics, chemistry, computer science and engineering) that tackle problems at the frontier of Life Sciences.¹³

2.5. Tax Incentives

In addition to a low average effective tax rate and participation reliefs with respect to dividends and capital gains, there are a number of tax incentives available for investors. In particular, cantonal authorities may grant the following privileged tax status to companies by way of a ruling:

- *Corporate income tax holidays:* In all Swiss cantons, newly established businesses may be granted tax holidays for cantonal tax purposes if they are economically important for the canton or the region. Depending on its size and function, a young company might enjoy partial or full exemption from cantonal taxes for a period of up to 10 years. Furthermore, as regards federal taxes the State Secretariat for Economic Affairs (SECO) may also grant tax holidays for businesses in order to reinforce the competitive ability of specific regions and to create or preserve jobs.
- *Holding company status:* Holding companies may benefit from a privileged tax status to the extent that they are exempt from cantonal and communal corporate income tax. The exemption applies irrespectively of whether the income is derived from long-term investments or otherwise and of whether the income is generated abroad or in Switzerland.

¹² Please visit the Secretariat's website for more information:
<http://www.sbf.admin.ch/themen/01370/02396/02404/index.html?lang=en>.

¹³ Please visit the Secretariat's website for more information:
<http://www.sbf.admin.ch/themen/01370/02396/02422/index.html?lang=en>.

- *Mixed company status*: A company may be granted mixed company status if it does not engage in commercial activities within Switzerland or if it engages in such activities to a minimal extent only. Non-Swiss source profits derived by these companies are taxed at substantially reduced rates. In most Swiss cantons only a percentage of the foreign-source income is taxed. This cantonal/communal tax regime is also available for Swiss branches of foreign companies.
- *Swiss principal company regime*: A Swiss company within an international group is treated as a principal company if it assumes risks and responsibilities for certain activities such as purchasing, planning of research and development (R&D), manufacturing and distribution, development of marketing strategies and logistics. If the Swiss principal company regime is applicable, it results in an attractive combined federal and cantonal/communal tax rate (ranging from approx. 5.5% to 12% depending on the specific set-up and the location).
- The *IP/Royalty Box regime* applies to all IP related income, be it of domestic or foreign source. It is based on a broad interpretation of IP, i.e. not limited to registered trademarks and patents. For the companies concerned the application of the regime results in the reduction of their tax liability on the cantonal/communal level by up to 80%. For the time being, the IP box regime is only applicable upon request for companies having their domicile or branch in the canton of Nidwalden (but see the current developments under Question No. 3). Moreover, in order to be applicable the IP Box regime requires appropriate substance in Switzerland (offices, personnel, management functions, etc.) and generally excludes the application of other tax privileges.

3. What Else Could Be Done to Promote Young Life Sciences Companies in Switzerland?

At state level, the federal and cantonal governments should seek additional instruments to further promote Life Sciences companies in general and start-ups in particular. Given the market potential of promising young Life Sciences companies and their important contribution to human health, current support and funding mechanisms ought to be further improved. In addition, the respective companies should be exempted from potential austerity measures.

Regarding taxes, certain tax privileges, including the above-mentioned holding privilege, have recently come under pressure. Within the framework of the Swiss corporate tax reform III, which is currently being debated by the Swiss Federal Parliament, the government seeks to further enhance the competitiveness of the Swiss tax system as well as to adapt it to accepted international standards of taxation.¹⁴ A prominent element of the reform is the proposal to introduce IP boxes, as already implemented in the canton of Nidwalden, as a general tax regime in all Swiss cantons. Since IP boxes reflect an already well-established concept in other countries (e.g. The Netherlands, Luxembourg, etc.) and are in line with OECD standards, chances are that this tax regime will be introduced throughout Switzerland in the future.

Although Switzerland is not a member of the European Union, it is inextricably linked with the European market through a dense network of bilateral, so-called “sectoral” agreements. This bilateral approach allows Switzerland to benefit economically from the EU market while maintaining its political independence. The agreements not only guarantee the free movement of people, goods, capital and services, but also provide a framework for enhanced scientific and technological cooperation between Switzerland and the EU. At present, the arrangement in place is being put into question as a result of a national referendum held on 9 February 2014. By way of this referendum, the Swiss voters decided to reintroduce quotas on immigrants from both EU and non-EU countries. However, the Swiss government is strongly committed to the current cooperation regime, and Swiss voters in past referendums repeatedly endorsed the government’s position, too. Negotiations are thus under way to reconcile the outcome of the said referendum with the agreements in place. In parallel, the negotiating partners are planning to take up new negotiations on matters such as research, education, the energy market and emissions trading as well as on an institutional framework agreement designed to serve as a basis for all bilateral treaties and for further steps of integration. The ongoing efforts of harmonisation and economic cooperation are highly desirable from the viewpoint of Life Sciences business.

From a more regulatory perspective, IP law should be constantly reviewed against the background of new industrial developments and the needs and particularities of the Life Sciences industry. It seems especially desirable that patent law is adjusted accordingly so as to stimulate innovation and competition among companies. While the interconnectedness with the EU has caused Switzerland to widely adapt its market regulations to EU standards, further harmonisation efforts can be expected in the near future.

¹⁴ For more information about the ongoing Swiss corporate tax reform, please visit the website of the Federal Department of Finance: <http://www.efd.admin.ch/themen/steuern/02720/index.html?lang=en>.

Government-based measures need to be complemented by private initiatives. In particular, networks between high-level academic institutions (such as the Federal Institute of Technology) and the private sector, but also between experienced, multinational companies and start-ups, are of paramount importance. Thus, existing platforms, as described above, need to be further resourced and supported in order to assume additional functions and to more effectively promote Life Sciences business in Switzerland.

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