

A Prime Example of a Competitive Business Location

Switzerland Leads the World in the Biotech Boom



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Switzerland is the location of choice for over 137 biotech companies and 81 biotech industry suppliers. In 2006 the Swiss biotech sector generated global revenue of over CHF 6 billion and employed over 14,000 people. In terms of size and number of inhabitants, Switzerland is the leading biotech location in the world.

Biotechnology is an industry where both scientific and regulatory obstacles can cause delays in the product development process, and it can take over a decade till a product is actually brought on to the market. In view of this, it is all the more surprising that the industry has developed so rapidly over the last 30 years. Today, biotechnology is a global industry with revenue of over CHF 80 billion and several hundred products brought to market (in human medicine alone).

Switzerland's Leading Role in Biotechnology

Right from the outset, Switzerland has been actively involved in the development of biotechnology – with initial involvement mainly taking the form of financial investment (either direct or indirect) in a variety of new biotech startups in the US and later in Europe. Thanks to the strong global presence of the Swiss pharmaceutical industry, available capital and excellent academic opportunities, a domestic biotech industry was quick to follow. Providing more than 14,000 jobs and generating revenue of more than CHF 6 billion in 2006, the industry has grown into a serious branch of the Swiss economy, which has led in turn to the professionalization of investors and company founders. Below we evaluate several key indicators which have contributed to Switzerland enjoying a position among the top ten biotech countries in the world for a number of years.

High Quality in Research and Practice

The starting point is the excellent network of universities and colleges in Switzerland. The latest reforms of the nation's higher education system are contributing to the successful continued development of science faculties. The national Systems X initiative is just one example of interdisciplinary collaboration between the worlds of academia and business. As part of this initiative, and in cooperation with the Universities of Basel and Zurich, the Federal Institute of Technology (ETH) has founded the Insti-

tute for System Biology which enjoys strong support from private industry (particularly pharmaceutical companies). Meanwhile, many other incubators have sprung up in Switzerland in collaboration between the state and private industry – such as the Ecllosion Science Park in Geneva, where the state contributes financially to the operation of the incubator while private investors (including venture capitalists and private equity houses) provide major support for capital-intensive investments. New ideas spring up quickly in this fertile soil, and the biotech companies are quick to act on them. The number of Nobel Prize winners is just one indicator of their success among many. At the 2004 European Biotechnical Awards, for example, Prionics (a company from Schlieren) won first prize, and Cytos was placed third. In 2005 the Basel-based company Speedel came second.

Attractive Economic Conditions

Switzerland is located at the heart of Europe, and has direct access to the EU with its 450 million inhabitants. Practically all the important destinations within Europe can be reached by air from Switzerland within about two hours. By signing bilateral agreements with the European Union, Switzerland has gained access at a political level to a pool of highly qualified personnel. Thanks to the excellent reputation of the country's biotech industry and the attractive employment conditions offered, Swiss companies generally find it easy to fill newly created positions. Apart from its political

and social stability and high quality of living, Switzerland also has an advantageous tax system: the maximum corporate tax rate of 21% is one of the most attractive in Europe (NB: although newly founded biotechs in particular often lose money in the first few years, timely attention should be given to the tax burden, because tax planning for the “fat years” has to be budgeted for). Nor should the relatively low administrative requirements and low social security contributions (non-wage labor costs) be overlooked.

These attractive local conditions have prompted a number of international biotech companies to move their global or European headquarters to Switzerland – such as the two American biotech giants Amgen and Biogen-Idec – as also shown by a recent study conducted by Ernst & Young in Switzerland (www.ey.com/ch).

Leading European Stock Exchange and Financial Center

The Swiss Exchange (SWX) is the leading stock exchange in Europe for life science companies. More than a third of total market capitalization comes from companies in the biotechnology, medical technology and pharmaceutical sectors. The companies' performance is reflected in the SXI Life Sciences and SXI Bio+Medtech indices, which achieved growth of over 28% in 2006 and thus represented by far the best value of all market indicators worldwide. More and more foreign companies are also coming to the Swiss Exchange, with the aim of raising capital here. The most recent examples include the successful IPOs of Mi-

lan-based biotech Bioxell (in June 2006) and Newron Pharmaceuticals (in December 2006). Meanwhile, another Italian company (Cosmo Pharmaceuticals) went on the SWX.

Full Product Pipeline in Europe

Even today, the industry is still significantly affected by activities in North America, although Europe has become a strong player in its own right in this global industry. Proof of this can be seen in the almost 700 product candidates which were in clinical development at the end of 2006 (based on information from companies listed on the stock market only). Approximately 15% of these potential products come from Swiss companies, meaning that, in comparison with the rest of Europe, Switzerland is second behind the UK (table 1).

Mergers & Acquisitions – and the Sero Case

A further positive indication of the state of the Swiss biotech industry can be seen in recent transactions on the capital market involving Swiss companies. In summer 2005 Roche paid around CHF 235 million for the biotech company GlyCart, which was only four years old at the time. The completed takeover of Sero by the German company Merck in January 2007 is also proof that Swiss biotechs represent a future strategic opportunity for pharmaceutical companies. Faced with the prospect of patent expiries, they are pursuing a forward-looking strategy to secure their own market position and their future existence. Strategic alliances

such as the license agreement between Santhera Pharmaceuticals and Swedish company Biovitrum as well as Japanese firm Takeda, and that between mondo-Biotech and US company Biogen-Idec are further evidence of the high-quality development pipeline offered by Swiss biotech companies. At the same time, however, Swiss biotechs are active on the acquisition front. The latest example is the recently completed takeover of Nasdaq-listed US firm Cothelix by Actelion, for a cash purchase price of around half a billion Swiss francs.

These recent transactions also clearly show that there are a number of similarities between biotech and pharmaceutical companies which will be of considerable importance in the years to come. The key issues from the pharmaceutical perspective are patent expiry, closing gaps in their product portfolios and increasing R&D productivity. The biotechs are tackling topics such as capital requirements, marketing experience and exit strategies for investors. So it should come as no surprise if we observe the biotech and pharma industries converging into “biopharmaceuticals” in the future.

High Hopes for the Future

Over the past 20 years, biotechnology in Switzerland has grown into an industry that has become an established part of the economic environment – and is full of promise for the future. There is a constant global need for new, effective drugs which also represent good value for money. Along with increasing prosperity, demands on healthcare are also on the rise. The latest developments in Asia clearly show the effect that growing affluence has on worldwide trends. Even more reasons for Swiss biotech companies to devote their efforts to satisfying global need by producing new and effective drugs.

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Table 1: European public companies: Product pipeline 2005

Country	Preclinical	Phase I	Phase II	Phase III	Total
UK	64	39	72	36	211
Switzerland	51	8	23	27	109
Denmark	19	7	21	3	50
Germany	15	9	10	5	39
France	14	7	12	3	36
Sweden	8	6	6	5	25
Austria	6	2	1	1	10
Israel	2	1	4	1	8
Belgium	5	1	2	0	8
Finland	5	0	1	1	7
The Netherlands 4	1	0	1	6	
Norway	0	2	2	1	5
Ireland	1	1	2	0	4
Iceland	0	1	2	0	3
Italy	2	0	0	0	2
Total	196	85	158	84	523

Source: Ernst & Young and company websites

Estimates only include data for companies that report pipeline information
2006 table will be available in May 2007