SWITZERLAND AS A MEDICAL TECHNOLOGY HUB

A BRIEF SUMMARY OF THE KEY POINTS

Switzerland is one of the most important locations for the global medical technology industry. There is in fact no other country in which medical technology enjoys such high status in comparison with total GDP and the working population than Switzerland. The combination of first-class research facilities and a highly developed healthcare sector, which demands appropriate products and stimulates innovation, makes Switzerland an extremely attractive location for research, development and production in the medtech sector.

Focus of activities
of Swiss medical technology companies

Source: SMTI, 2014

In accordance with the survey conducted among 341 companies in the medical technology sector

Top 10 med-tech companies
according to number of employees 2015

Source: Swiss Medtech Country Report 2016
RESEARCH AND DEVELOPMENT (R&D)

- Switzerland is the global leader in attracting highly qualified specialists from abroad. This makes it easy to find talented recruits.

The proportion of medical technology-related patents in relation to all patent applications is almost three times higher than the global average. Swiss companies register patents for over 1,200 medical technology inventions, both domestically and abroad, each year.

Medical Technology Patent Applications

<table>
<thead>
<tr>
<th>Year</th>
<th>Switzerland</th>
<th>Worldwide</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>2000</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>2002</td>
<td>15</td>
<td>20</td>
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<tr>
<td>2004</td>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td>2006</td>
<td>25</td>
<td>30</td>
</tr>
<tr>
<td>2012</td>
<td>30</td>
<td>40</td>
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</tbody>
</table>

Source: Eidgenössisches Institut für geistiges Eigentum

- The transfer of expertise and the level of cooperation in the Swiss medical technology industry are unique. 94% of the medical equipment manufacturers in Switzerland collaborate with partners – whether they are universities, hospitals or companies from related sectors, such as in mechanical engineering or pharmaceuticals. This very specifically promotes innovation.

Over 1,000 suppliers, service providers, retailers and distributors can be found in Switzerland, along with more than 340 medical technology manufacturers.

- In 2013, there were 956 individuals studying Life Sciences at the Federal Institute of Technology in Lausanne (EPFL), at Bachelor, Master’s or Doctorate level. In the same year, there were 1,326 individuals attending Life Science courses at universities of applied sciences. More than 40 professors are currently conducting research in medical technology at the Swiss Federal Institute of Technology in Zurich (ETH). The ETH is to be further reinforced as a hub for medical technology in the next few years by ten additional professors, a new infrastructure and a medical technology project fund. The two universities are also among the best in the world for the training of engineers and computer scientists.

- In 2013, Swiss med-tech manufacturers invested 17% of their turnover, and their suppliers 11%, in R&D. The eight market-listed Swiss pure-play med-tech companies alone invested USD 263 million in research and development.

- Efficient and straightforward application procedures are in place to protect intellectual property. One central, internationally valid registration procedure provides access to international systems for the protection of intellectual property (European Patent Office EPO, World Intellectual Property Organization WIPO). Local representatives in other countries are not required.

- 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, in Northwest Switzerland and in Biel.

COSTS AND FINANCING

- The close proximity to one of the world’s most important financial centers provides the best possible conditions for new companies in particular, for different finance solutions, including the easy availability of venture capital and private equity funds.

- Almost three quarters of the venture capital invested in Switzerland in 2014 went to companies in the Life Science sector. In both 2014 and 2015, med-tech startups respectively generated over CHF 150 million. The biggest round of financing generated CHF 96 million in 2015. It was concluded by med-tech company CeQurBiocartis.

- 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. 42% of the capitalization of European life science companies can be found on the SIX.

Employees in the medical technology field as a percentage of the employed population

<table>
<thead>
<tr>
<th>Country/Economic Area</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switzerland</td>
<td>1.1</td>
</tr>
<tr>
<td>Germany</td>
<td>0.4</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>0.2</td>
</tr>
<tr>
<td>European Union</td>
<td>0.3</td>
</tr>
<tr>
<td>USA</td>
<td>0.3</td>
</tr>
</tbody>
</table>

Source: SMTI Report, 2014
• 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.

• In addition to global corporations, the Swiss medical technology sector also consists of numerous SMEs. 50% of med-tech companies in Switzerland employ ten people or less. This provides opportunities, for example, for the development of specialist companies or for takeovers.

• The Swiss life science industry boasts the highest level of productivity per employee when compared to other top international locations. In 2012, this resulted in USD 286,000 being generated per employee in this industry sector.

• Accessing public funding is straightforward in Switzerland (Swiss Federal Commission for Technology and Innovation, CTI) and in the European Union. As part of the EU’s 7th Framework Program for Research and Technological Development, Swiss companies and universities have acquired more than CHF 1.5 billion in development funds within five years. The CTI promotes technology transfer by funding up to 50% of the expenditure of R&D projects that involve collaboration between industry and the universities.

• The number of funding applications approved by the CTI has increased far more than tenfold since 1997. The CTI and the industry invested around CHF 250 million in 235 projects between 1997 and 2009. The CTI Medtech Award is presented to a particularly outstanding research project every year.

FRAMEWORK CONDITIONS AND MARKET ENTRY

• The Swiss medical technology market has an extremely international focus. On the one hand, the med-tech departments of various international groups are located here. On the other hand, 75% of the medical equipment manufactured in Switzerland is exported abroad — primarily to the USA and Germany, but also to some extent to China and Japan. The Swiss Export Risk Insurance (SERV) guarantees protection for high-risk export transactions.

• According to industry surveys, growth rates of around 10% are expected again for 2015. Growth in the med-tech sector in Switzerland has also significantly exceeded growth in the economy as a whole in recent years. The highest growth over the coming years is expected in the US, German, Swiss and Chinese markets.

• Thanks to its highly-developed and financially sound healthcare system, Switzerland is considered to be an important strategic and clinical market for med-tech products.

• Switzerland is one of the highest spenders on its healthcare system per capita, making it an attractive sales market for medical equipment manufacturers. The strength of the domestic market is also enhanced by the ability of the country’s social security funds to reimburse expenses incurred for medicines in a rapid and uncomplicated manner.

• Thanks to free-trade agreements with the EU and 38 other countries including China, access to the most important markets is guaranteed. The mutual recognition of conformity and quality control enables Swiss med-tech companies to benefit from significant cost savings when trading with the EU, the EEA and the EFTA states.

• The mutual recognition of product regulations and conformity assessments makes it easier to access EU markets.

• After Germany and China, Switzerland has the third most comprehensive network of bilateral investment protection agreements.
CURRENT DEVELOPMENTS

• The Swiss parliament has invited the government to develop proposals for the establishment of a Future Fund (www.zukunftsfondsschweiz.ch). The aim is to encourage pension funds to invest venture capital in promising economic sectors, especially the med-tech sector. This measure will primarily be of benefit to startups.

• Switzerland has had its own implant register (siris) since 2012. This instrument is useful for benchmarking within the industry and in hospitals. As a database for long-term results and survival analyses, siris serves as an important advance warning system and aid for the med-tech industry.

• The creation of a National Center of Excellence for Translational Medicine and Entrepreneurship in Bern will simplify the cooperation process between industry and research clinics and improve the framework for turning this center into a global focal point for competition.

• In 2014 the industry’s leading association, FASMED, along with Interpharma, formed the IG Biomedical Research and Innovation Center. It strives to maintain and improve the quality of Switzerland as a business location, politically speaking, in order to uphold the industry’s high standards of innovation.