Swiss Biotech Report 2022

Frederik Schmachtenberg, Michael Altorfer
May 2, 2022
Sector again performs exceptionally well at all levels

• Capital investments in Swiss biotech companies reached CHF 3.33B (USD 3.53B) with continued strong international participation

• R&D investments increased to a record high of CHF 2.56B (USD 2.71B)

• The number of employees in Swiss R&D biotech companies increased by 9.5%

• Swiss biotech sector made significant contributions to address the impact of COVID-19

• Switzerland was ranked at the top of the Global Innovation Index for the 11th consecutive year
The year in figures

The 2021 data in the presented tables is based on information that was available up until March 31, 2022, when this report was compiled and went to press. At this time, some of the companies had not yet disclosed their financial figures for 2021. Therefore, some figures were carefully extrapolated on the basis of the latest interim data publicly available (i.e., Q3 or Q4 2021).
Capital investments in Swiss biotech companies 2011-2021
Private and public Swiss biotech companies

Source: EY (Capital investments include convertible bonds)
Biotech financing categories in Switzerland 2011-2021

- IPO
- Follow on
- Debt
- VC
Public and private Swiss regional financing 2019-2021

PRIVATE

<table>
<thead>
<tr>
<th>Year</th>
<th>Basel Area</th>
<th>Western Switzerland</th>
<th>Zurich Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>170</td>
<td>275</td>
<td>132</td>
</tr>
<tr>
<td>2020</td>
<td>173</td>
<td>136</td>
<td>132</td>
</tr>
<tr>
<td>2021</td>
<td>98</td>
<td>277</td>
<td>441</td>
</tr>
</tbody>
</table>

PUBLIC

<table>
<thead>
<tr>
<th>Year</th>
<th>Basel Area</th>
<th>Western Switzerland</th>
<th>Zurich Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>28</td>
<td>145</td>
<td>441</td>
</tr>
<tr>
<td>2020</td>
<td>1,051</td>
<td>625</td>
<td>1,022</td>
</tr>
<tr>
<td>2021</td>
<td>1,524</td>
<td>566</td>
<td>420</td>
</tr>
</tbody>
</table>
Revenues, R&D expenses, profit/loss, liquidity 2019-2021
Total Swiss biotech companies

Source: Annual Reports, website information and EY
Note: 2020 information restated based on public company restatement information

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Number of biotech companies in Switzerland 2012-2021

Source: Swiss Biotech Association, website information, EY
Number of Swiss R&D biotech employees 2019-2021

Source: Annual Reports, website information and EY
Life science exports CHF 109.0 bn, up from CHF 99.1 bn in 2020
Pharma and biotech represent 42% of Swiss exports

Life science sector has grown by a factor of 4.5 since 2000, making it the strongest single driver of Swiss export growth
Life science exports CHF 109.0 bn, up from CHF 99.1 bn in 2020
Pharma and biotech represent 42% of Swiss exports

Especially strong growth in innovative immunologicals of 23.7%
Main theme of the Swiss Biotech Report 2022
Sources of Swiss innovation
Swiss biotech ecosystem response to COVID-19

COVID-19 therapeutics:

• Vir Biotechnology/Humabs and GSK received FDA Emergency Use Authorization for sotrovimab in treatment of mild-to-moderate COVID-19 in high-risk adults and pediatric patients
• Molecular Partners and Novartis initiated global EMPATHY trial of ensovibep targeting omicron and potential future variants

Swiss National Science Foundation (SNSF), Innosuisse & biotechnet:

• biotechnet Switzerland initiated a wide range of public/private partnership projects to address the challenges of the Covid-19 pandemic (diagnostics, antibacterial textile treatment, patient monitoring)
• Innosuisse initiated the “Innovation Power Switzerland” program to foster additional public/private partnerships in January 2021

May 2, 2022
Swiss Biotech Report 2022 - Sources of Swiss innovation
Thriving ecosystem delivers innovation

• First in Global Innovation Index for over a decade

• Swiss biotech industry focused on international medical needs and collaborations

• Government support focused on academic research and talent formation

• Public-Private Partnerships play strong role

• Biotech patents: Switzerland has the highest market coverage and exceptionally high technology relevance

• New concepts such as blockchain and AI being embraced

• Sparks segment of SIX Swiss Exchange supporting innovative SMEs

• Attractive biotech hub for international talent, investors and manufacturers
World-class patents: Switzerland has the highest market coverage and exceptionally high technology relevance.
Swiss Biotech Report 2022 - Sources of Swiss innovation
Development of biotech IP from 2000 - 2019

<table>
<thead>
<tr>
<th>Biotech Tagged</th>
<th>Active Families Publication Date</th>
<th>Aggregated Totals / Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switzerland total</td>
<td>292</td>
<td>819</td>
</tr>
<tr>
<td>World total</td>
<td>10,047</td>
<td>35,437</td>
</tr>
<tr>
<td>Switzerland as percentage of world</td>
<td>2.9</td>
<td>2.32</td>
</tr>
<tr>
<td>Ratio Switzerland top decile-ranked</td>
<td>1.7</td>
<td>2.2</td>
</tr>
<tr>
<td>percentage to world top decile-ranked</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
New Sparks segment at SIX Swiss Exchange aims to ignite the SME life sciences sector

<table>
<thead>
<tr>
<th>Requirement</th>
<th>SIX Main Market</th>
<th>Sparks (SME Segment)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Track Record</td>
<td>&gt; 3 years (possibility of exemption)</td>
<td>&gt; 2 years (possibility of exemption)</td>
</tr>
<tr>
<td>Equity-capital requirement</td>
<td>&gt; CHF 25 million</td>
<td>&gt; CHF 12 million</td>
</tr>
<tr>
<td>Capital-increase requirement</td>
<td>-</td>
<td>&gt; CHF 8 million (none if equity capital &gt; CHF 25 million)</td>
</tr>
<tr>
<td>Max. market capitalization at listing</td>
<td>-</td>
<td>&lt; CHF 500 million</td>
</tr>
<tr>
<td>Max. market capitalization post listing</td>
<td>-</td>
<td>&lt; CHF 1 billion (transfer to SIX main market if average over 12-month period is higher)</td>
</tr>
<tr>
<td>Freely tradable shares (out of the outstanding shares)</td>
<td>&gt; 20%</td>
<td>&gt; 15%</td>
</tr>
<tr>
<td>Market capitalization of freely tradable shares</td>
<td>&gt; CHF 25 million</td>
<td>&gt; CHF 15 million</td>
</tr>
<tr>
<td>Min. number of investors</td>
<td>-</td>
<td>&gt; 50 investors</td>
</tr>
<tr>
<td>Trading hours</td>
<td>• Opening auction at 9 am</td>
<td>• Opening auction at 3 pm</td>
</tr>
<tr>
<td></td>
<td>• Continuous trading until 5.20 pm</td>
<td>• Continuous trading until 5.20 pm</td>
</tr>
<tr>
<td></td>
<td>• Closing auction and TAL until 5.40 pm</td>
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</tr>
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</table>
Blockchain applications move into life sciences

• Swiss law enabling Swiss Crypto Valley pioneers to move into life sciences

• Seen as key enabler across whole development chain - from basic research and trials to manufacturing and distribution:
  • SIBC facilitates new raw material development
  • Molecule supplies non-fungible tokens for decentralized open-source drug development
  • D36 builds immutable notary ledgers to ensure security and data privacy
  • Verum offers fractionalized royalty deals to open new investor channels
  • Pharmaledger provides an overall platform to support design and adoption of blockchain
Celebrating and honoring major achievements

The Swiss Biotech Association has launched Swiss Biotech Success Stories to celebrate those who have made significant contributions to the industry.

Dedicated to scientists, pioneers, entrepreneurs, innovators and supporters who led the way, opened the horizon and prepared the ground for lasting achievements.

Swiss Biotech Success Stories accentuate past industry highlights and act as motivator for future achievements.
Success Stories Award winners 2022

Etienne Jornod, CEO of OM Pharma
Switzerland: A dynamic biotech ecosystem
Key 2021 figures at a glance

- **SALES**: CHF 6.7B
  Biotech sales in 2021

- **EXPORTS**: CHF 109B
  Exports of pharmaceuticals, vitamins and diagnostics

- **BIOTECH COMPANIES**: 323
  R&D biotech companies

- **LIFE SCIENCES INDEX**: +94% SIX
  5-year performance of SIX Bio-Medtech (Jan 2017 - Dec 2021)

- **NEW FUNDS**: CHF 3.3B
  For private and public biotech

- **RECORD R&D INVESTMENTS**: CHF 2.6B
  R&D spending by biotech companies

- **EMPLOYEES**: 7,633 PRIVATE
  In R&D biotech companies

- **APPROVALS**: 10,222 PUBLIC
  - 50 FDA (57 in 2020)
  - 91 EMA (97 in 2020)
  - 45 Swissmedic (42 in 2020)

Top ranking in GII every year since 2011