

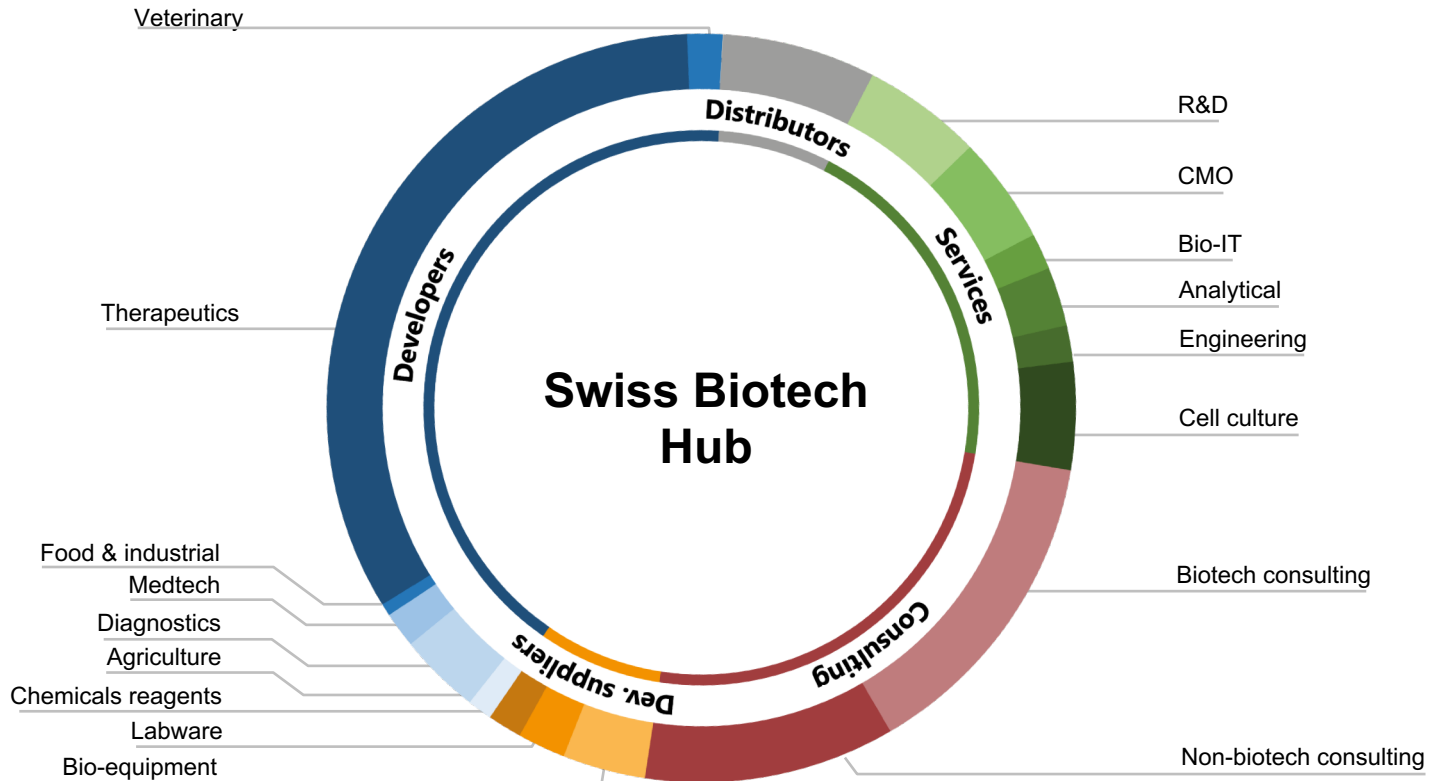


Swiss Biotech Report 2020

Jürg Zürcher and Michael Altorfer

April 21, 2020

Swiss biotech hub: A tight cross-functional network



Swiss Biotech Report 2020: Continued sector growth

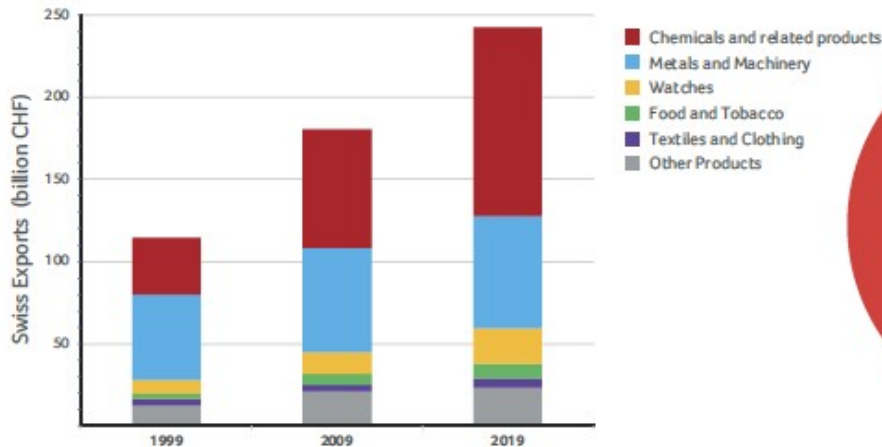
- Biotech industry generates revenues of CHF 4.8 billion in 2019, up from CHF 4.0 billion in 2018
- Over CHF 1 billion raised for private and public companies
- Licensing deals and collaborations boost revenues
- Gene therapy, AI and advanced biologics manufacturing emerging as additional strengths
- Over 40 new start ups set up in 2019



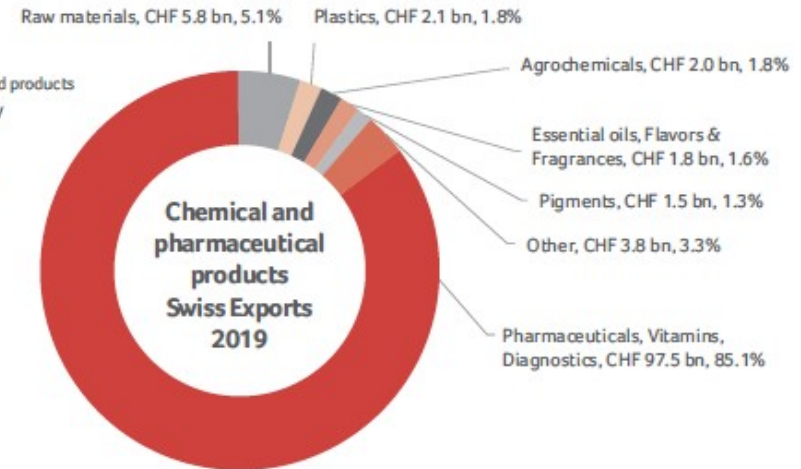
Life sciences account for 40% of Swiss exports

Pharma and biotech together CHF 97.5 bn in 2019

Swiss Exports by Industry Segment 1999-2019



Breakdown of the Chemical and related products segments



Source scienceindustries 2020

Emerging new strengths

Manufacturing of complex biologicals and exploitation of AI

- Biogen, CSL Behring, Novartis and Merck invest heavily in expanding production capacity
- Increasing number of complex biologicals and cell therapies gain approval
- AI being exploited by companies such as SOPHiA GENETICS, BC Platforms, Genedata, Insphero, GenomSys and SimplicityBIO



Artificial intelligence: Emerging business opportunities

Interviews with Jurgi Camblong, SOPHiA GENETICS and Axel Nemetz, IBM

- AI applications offer new business opportunities in healthcare
- SOPHiA GENETICS and IBM represent two complementary examples
- Both develop globally applicable solutions based on smart interpretation of standardized large data collections
- Their business models do not rely on specific drugs or cell based therapies but rather on the ability to provide information on who can benefit best from certain medical treatment options
- Thus, development processes can be faster, more cost effective and targeted to patient groups that benefit most



Jurgi Camblong
SOPHiA GENETICS



Axel Nemetz
IBM Switzerland

Switzerland # 1 in innovation and competitiveness

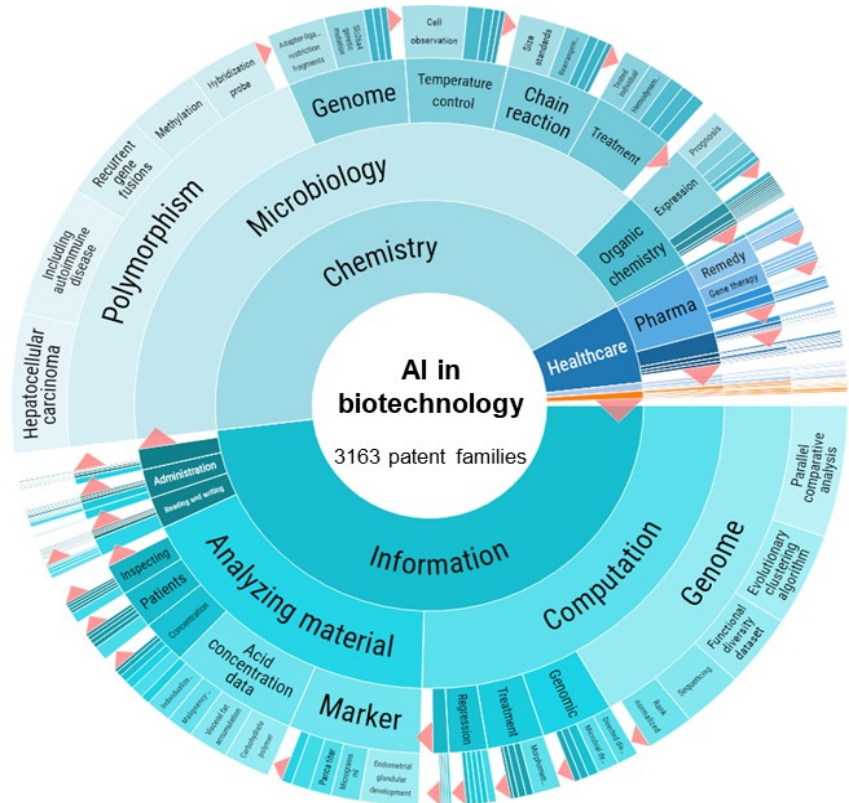


	INSEAD GLOBAL INNOVATION INDEX	IMD WORLD COMPETITIVENESS RANKING	WEF GLOBAL COMPETITIVENESS INDEX	UNDP HUMAN DEVELOPMENT INDEX	WORLD HAPPINESS REPORT	TOTAL AGGREGATE
Switzerland	1	4	5	2	6	18
Netherlands	4	6	4	10	5	29
Sweden	2	9	8	8	7	34
Denmark	7	8	10	11	2	38
USA	3	3	2	16	19	43
Finland	6	15	11	12	1	45
Norway	19	11	17	1	3	51
Singapore	8	1	1	9	34	53
Germany	9	17	7	4	17	54
Ireland	12	7	24	3	16	62
Canada	17	13	14	13	9	66
United Kingdom	5	23	9	15	15	67

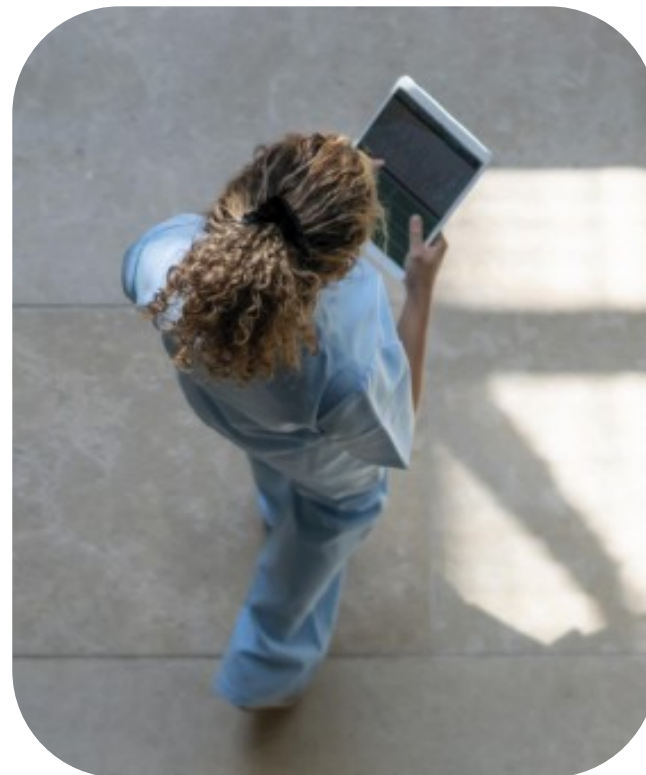
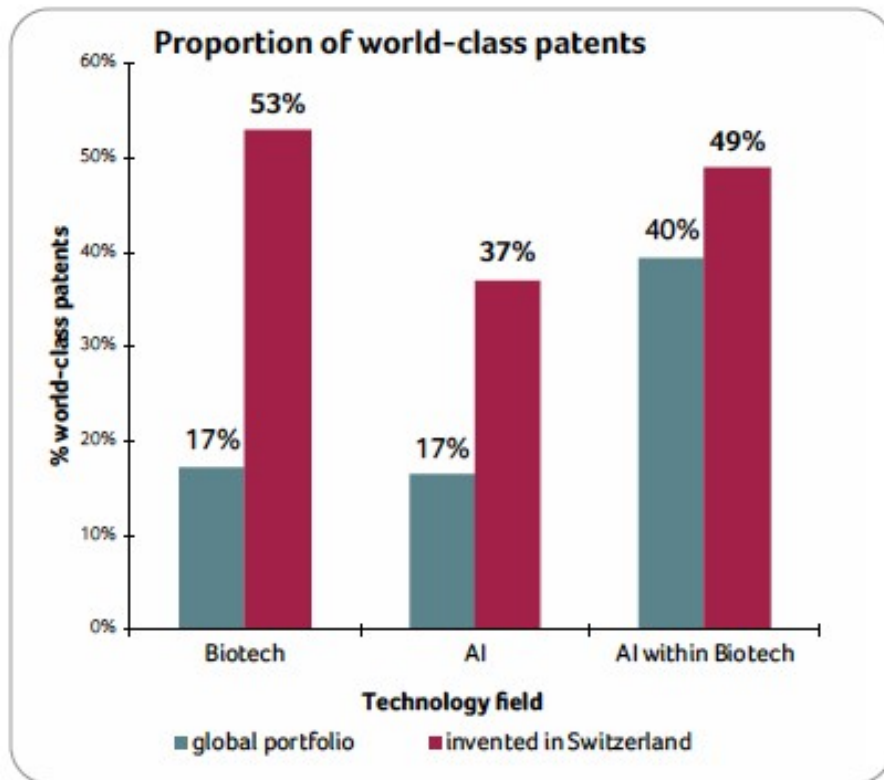
Wide array of patents intersecting AI & biotechnology

AI generated Semantic Sunburst graph

- Overlap between AI and biotechnology yields 3,163 patent families
- Patents spread across a wide array of discipline
- From microbiology and polymorphisms to “information” and “computation”



Winning portfolio: Almost 50% of Swiss patents combining AI with biotechnology classify as world class

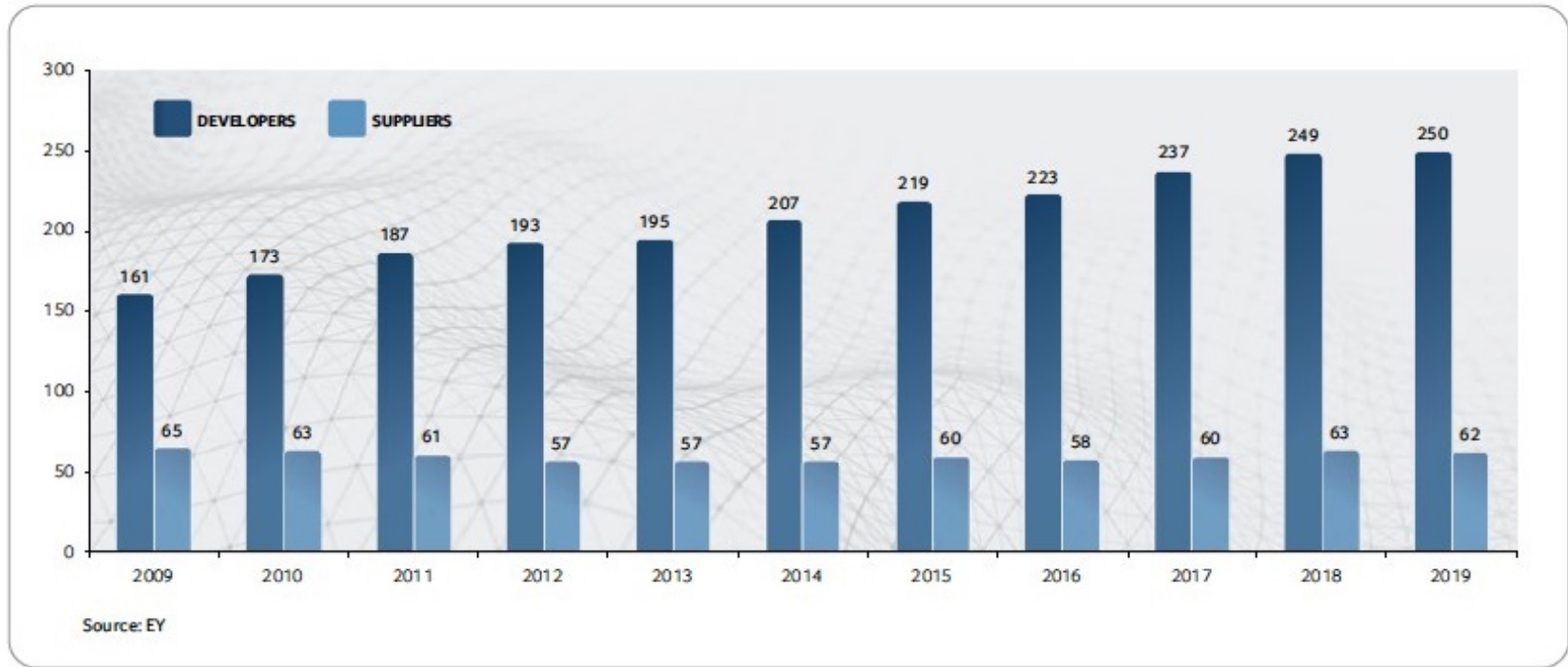


The year in figures

The 2019 data in the following slides is based on information that was available up until April 3 when this report was compiled and went to press. At this time, some of the companies had not yet disclosed their financial figures for 2019. Therefore some figures were carefully extrapolated on the basis of the latest interim data publicly available (i.e. Q3 or Q4 2019)

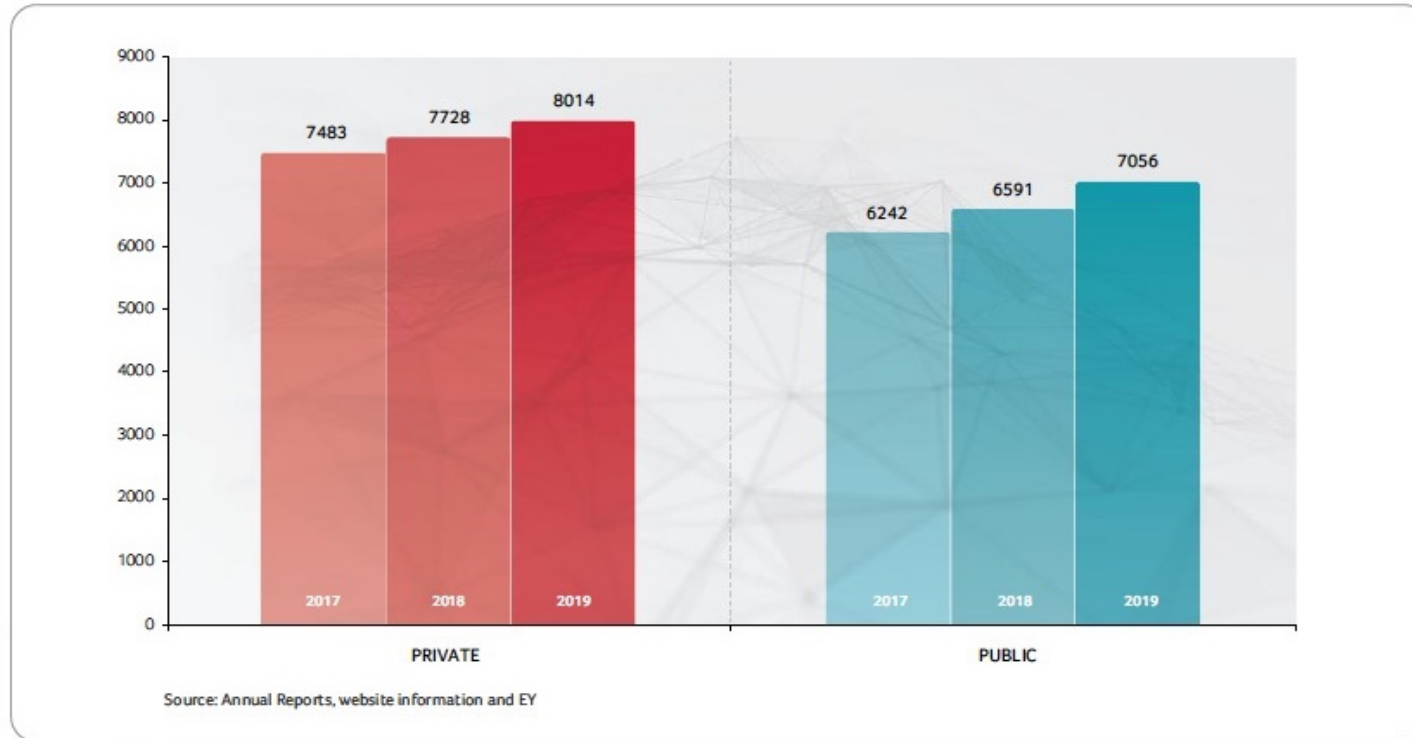
Rising number of biotech companies in Switzerland

Evolution 2009-2019



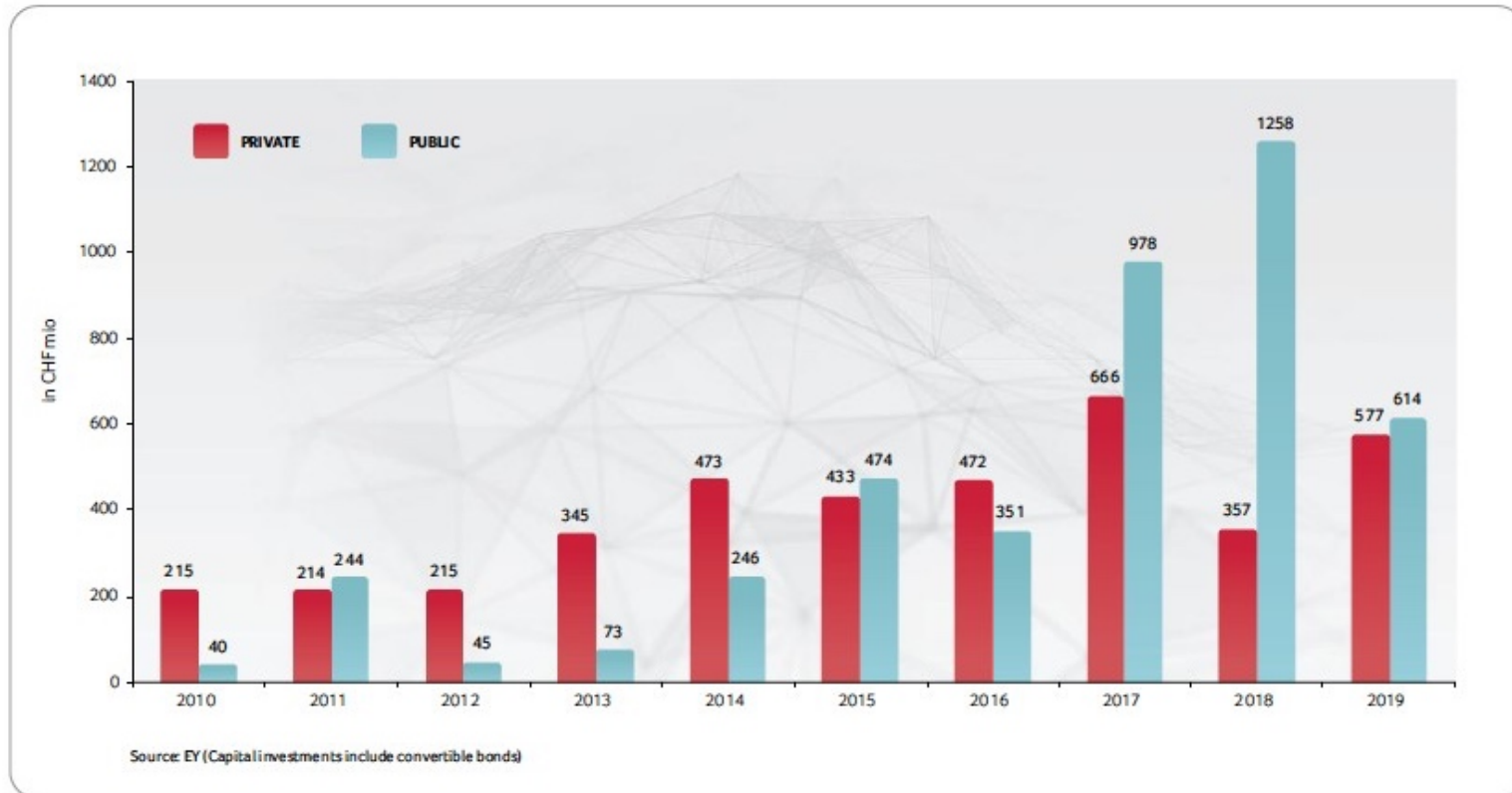
Rising number of Swiss biotech employees

Evolution 2017-2019



Capital investment in Swiss biotech companies

Public and private



Distribution of private and public capital investments

Across Swiss regions 2017-2019 (in CHF million)



Swiss Biotechs raised a total of CHF 1.2 billion

Almost even split between public and private companies

2019 public rounds

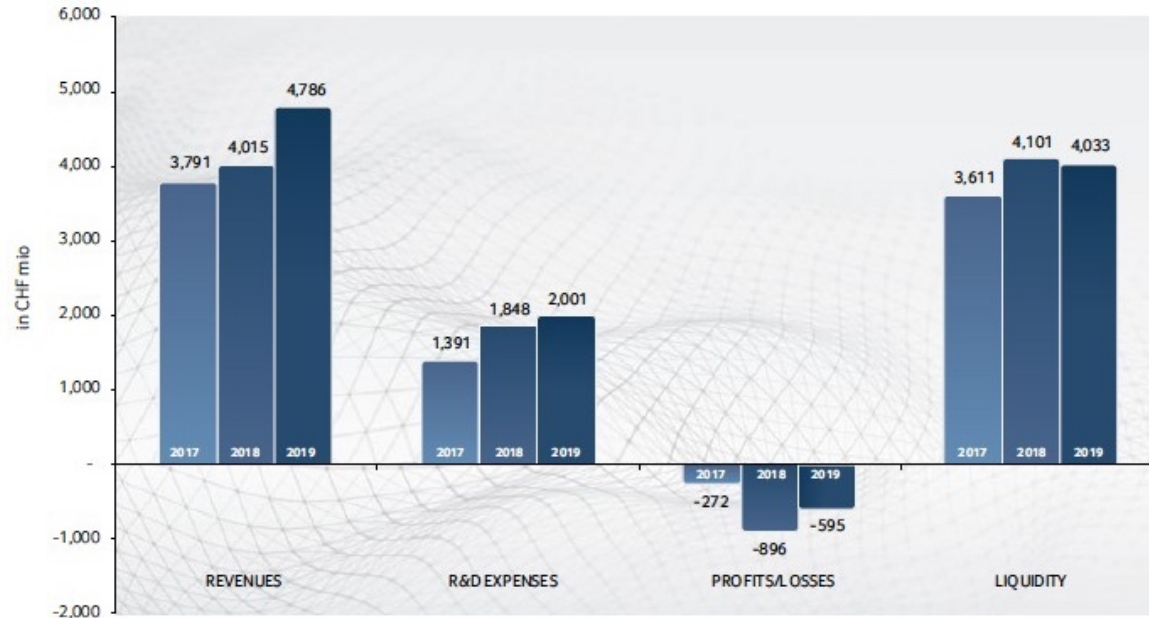
COMPANY	CHF MILLION
CRISPR Therapeutics AG (Zug)	433
AC Immune (Lausanne)	50
Obseva (Geneva)	25
Auris Medical (Zug/Bermuda)	8
Biocartis (Lausanne/Mechelen)	64
Polyphor (Allschwil/Basel)	6
Santhera (Pratteln/Basel)	22
Addex & Relief Therapeutics (Geneva)	6
Total	614

Major 2019 private transactions

COMPANY	CHF MILLION
Sophia Genetics (Lausanne)	76
ADC Therapeutics (Lausanne)	101
Polyneuron (Basel)	29
Anokion (Lausanne)	40
Oculus (Lausanne)	16
Other	316
Total	577

Revenues, R&D expenses & profit/loss liquidity

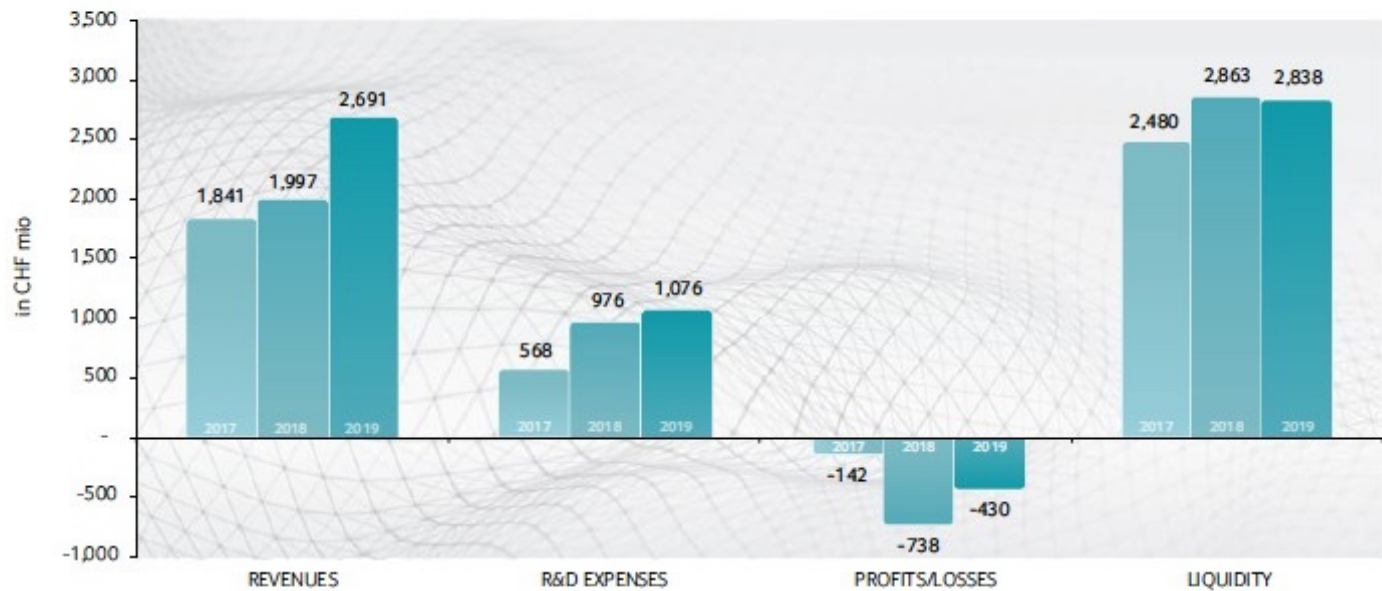
Total Swiss biotech companies



Source: Annual Reports, website information and EY

Revenues, R&D expenses & profit/loss liquidity

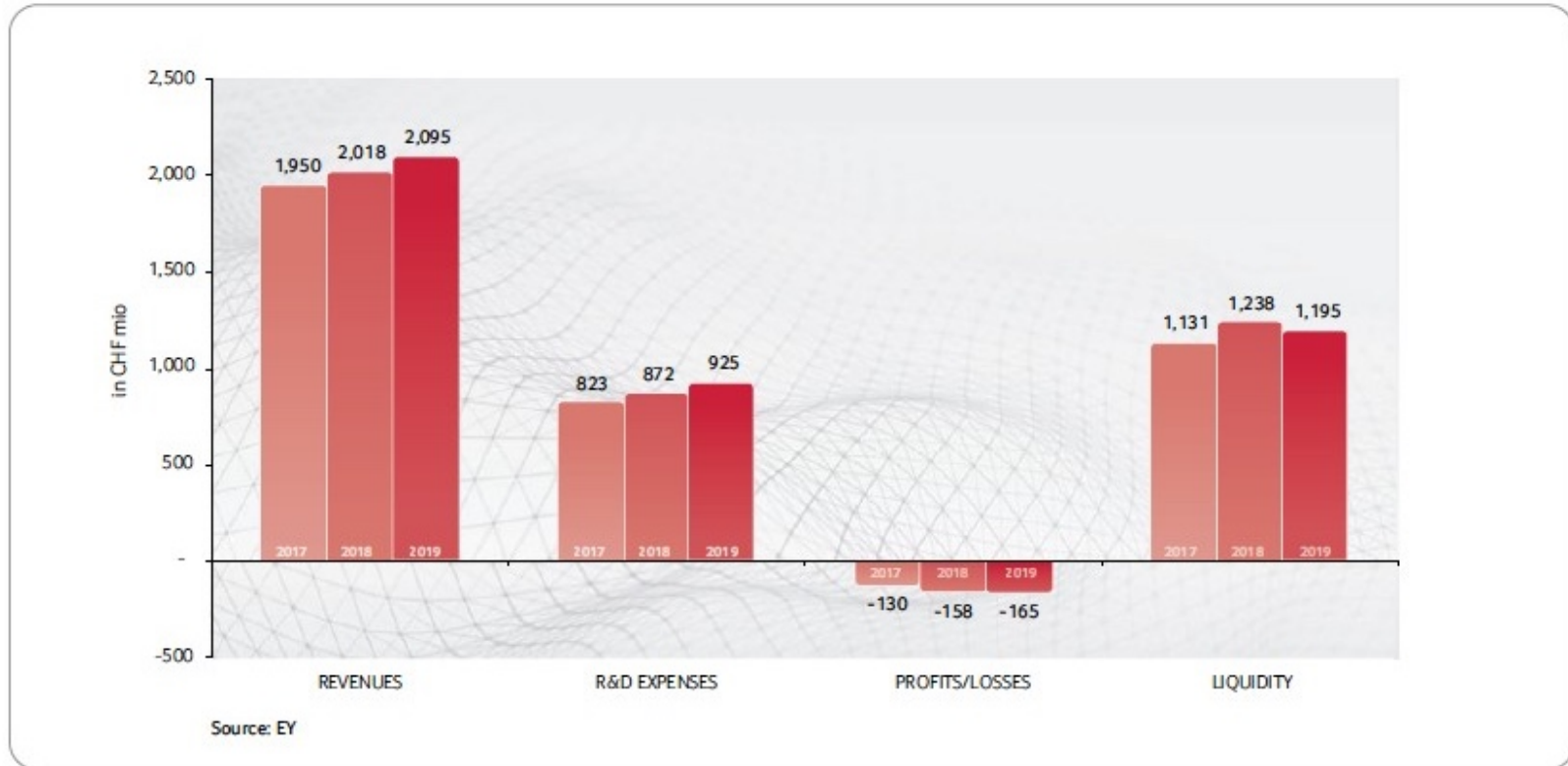
Publicly traded Swiss biotech companies



Source: Annual Reports, website information and EY

Revenues, R&D expenses & profit/loss liquidity

Privately held Swiss biotech companies



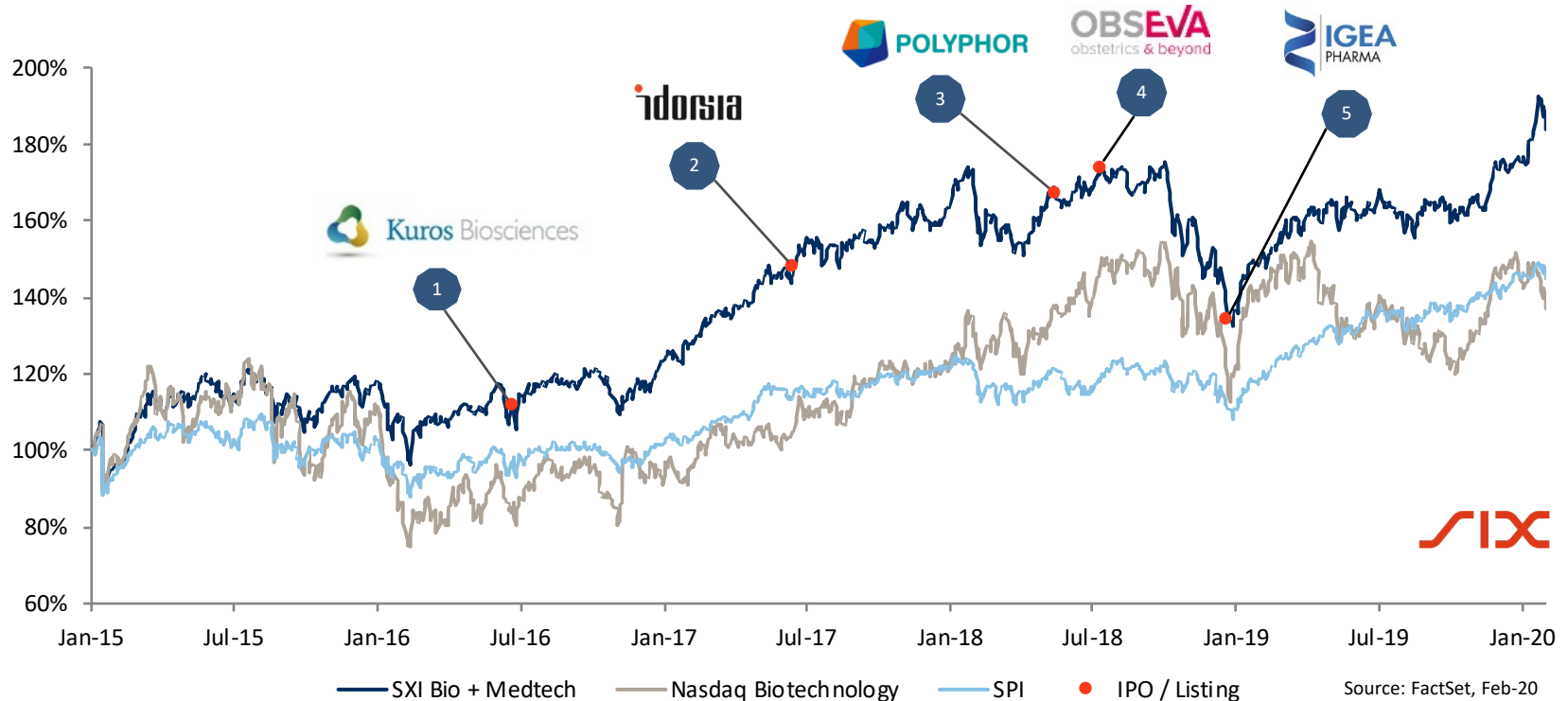


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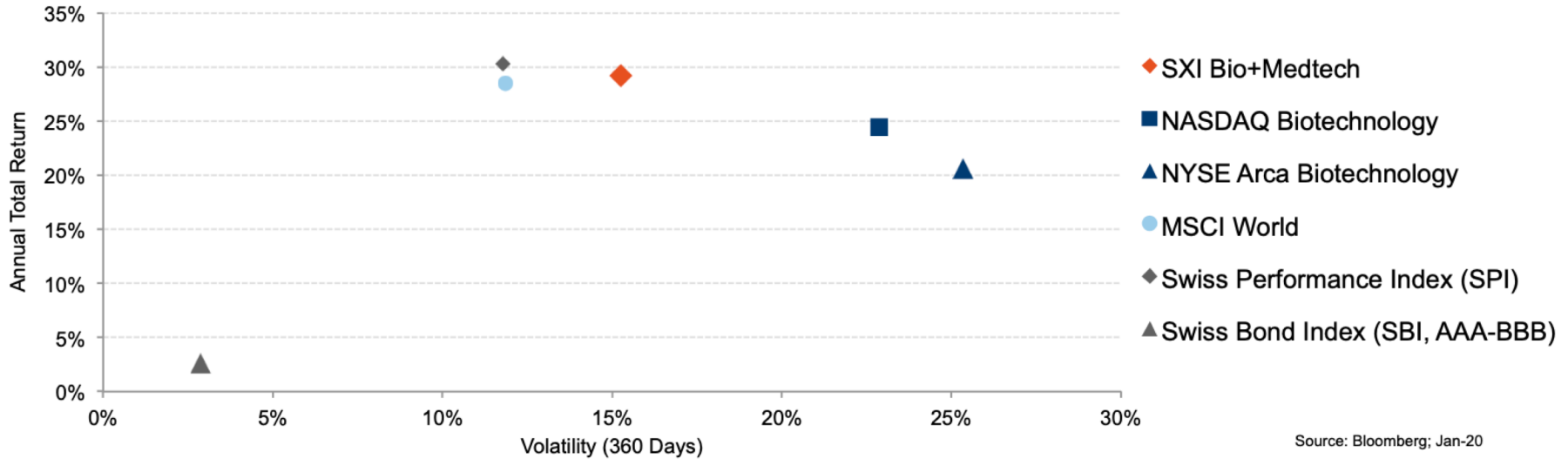
SXI Bio + MedTech Index on SIX

Outperforms Swiss Performance Index (SPI) by 38% and NASDAQ Biotechnology by 46% in 5 years to Jan 2020



Comparative indices volatility and returns

SXI Bio + Medtech risk & return profile for 2019



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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



SWISS BIOTECH SUCCESS STORIES

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

Award winners 2020

- Actelion
- Debiopharm
- Helsinn
- Venturelab
- >>venture>>
- Venture Kick
- Prof. Werner Arber, nobel price laureate



**SWISS BIOTECH
SUCCESS STORIES**

Celebrating and honoring
major achievements

Laureates nominated for the Success Stories Award in 2021

BACHEM



Lonza



**SWISS BIOTECH
SUCCESS STORIES**

Celebrating and honoring
major achievements

Steering Committee Swiss Biotech Report 2020



Michael Altorfer



Florian Fisch



Marta Gehring



Fabian Gerber



Jan Lucht



Christian Moser



April 21, 2020



Johanne Stettler



Laura Suter-Dick



Sirpa Tsimal



Jürg Zürcher

