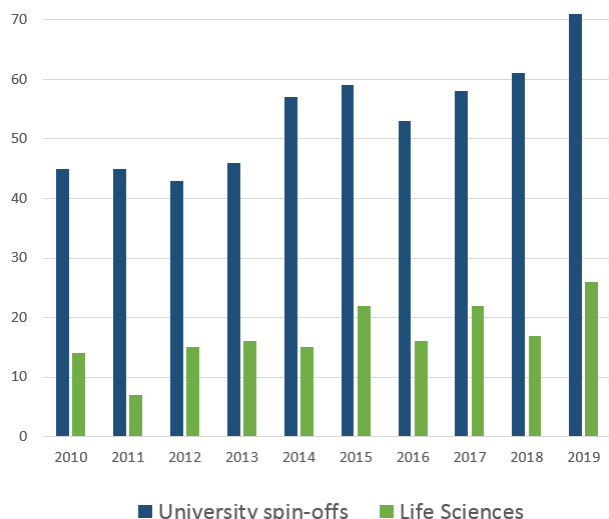


# Swiss university spin-offs: joining the big league?

By Roch Ogier and Saskia Karg

### Steady growth in incorporations and funding

In the last ten years, we have seen a steady increase in the number of Swiss university spin-offs, but nothing close to a growth explosion. What has finally increased, however, is the level of support. Academia created incubators in most universities, early financial support such as Innogrants (EPFL), Pioneer fellowships (ETH) or Entrepreneurship fellowships (UZH) are being offered, and the ecosystem has gotten much stronger (accelerators, competitions, prizes, etc.). Many initiatives did not exist ten years ago.



The funding of start-ups has also increased, reaching a record high every year in the past eight years.

Are all our efforts about to pay off, spin-offs getting more professional, receiving more funding, and, as a result, increasing their chances of success? Only time will tell, but things certainly look promising...

It is interesting to observe that a Swiss university such as the ETH Zurich plays in the big league on a worldwide scale in terms of publication and translational efforts (such as invention disclosures, patent filings). It even ranks first in the number of spin-offs created yearly. However, the revenue flowing back to ETH is much lower than for other top universities. While these data must be interpreted with caution, it can be hypothesized that we will see a significant increase in revenue in the coming years, following – with a delay – the increased number, professionalism, and funding of Swiss university spin-offs.

ETH zürich Stanford University HARVARD UNIVERSITY UNIVERSITY OF OXFORD

	ETH zürich	Stanford University	HARVARD UNIVERSITY	UNIVERSITY OF OXFORD
Publications	1'057	1'701	2'619	1'346
Invention disclosures	200	560	442	367
Patents filed	109	289	224	100
Spin-offs	30	25	15	28
Gross royalties Licensing fees	2M	49M	110M	21M

### ETHs and the Zurich area are main driving forces

Every year, around 60 new spin-offs are created out of the seven most entrepreneurially active universities (ETHZ, EPFL, UZH, UniBa, UniBe, UniGe, UniL). On average, another eight originate in Universities of Applied Sciences and five in Swiss Federal Research Institutions in the ETH domain. The majority of spin-offs originate at an ETH, with EPFL and ETHZ representing over 70% of new university ventures. Geographically, Zurich is the main hub in Switzerland due to the entrepreneurial activities of ETH Zurich and the University of Zurich.

### Creation of spin-offs



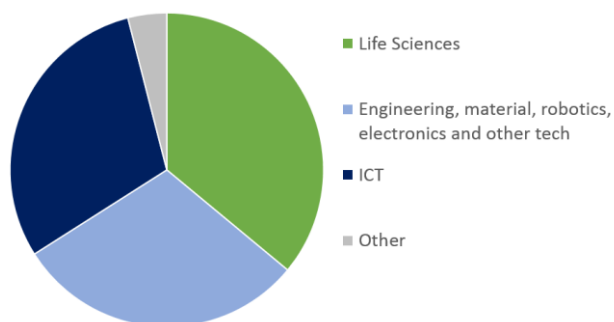
### Creation of spin-offs in life sciences



### Life sciences remain the most substantial spin-off sector

By far, the most active field for spin-off creation is the life sciences in so-called comprehensive universities (UZH, UniBa, UniBe, UniGe, UniL), 74% of their spin-offs being in this field. At ETHs, technology-based spin-offs are most frequently created.

36% of ventures from the top seven most entrepreneurially active universities in Switzerland are in life sciences. UZH, ETH Zurich, and EPFL each generate an approximately equal number of life science spin-offs, making up 75% of all life science university spin-offs.



#### Disclaimer

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#### Box 1: what is a university spin-off?

We define university spin-offs as **new ventures commercializing research results and scientific knowledge from universities**. Some universities define spin-offs as companies with a license agreement with the university. In contrast, this criterion is not mandatory for others who include non-licensed use of scientific expertise, knowledge, or know-how acquired at the university. In Switzerland, around 2/3 of spin-offs registered by the technology transfer offices (TTO) have a formal license.

The difference between an academic and a non-academic spin-off is often not black and white. Many founders are (recent) university graduates, and start-ups often collaborate with academic centers for their R&D. And, as mentioned above, not all universities use the same criteria to define a spin-off. In the life sciences, intellectual property (IP) developed at a university is usually the basis for commercial development, so life science start-ups are generally spin-offs.