Interview: Nic Alexakis â?? CEO, Swiss Biotech Association

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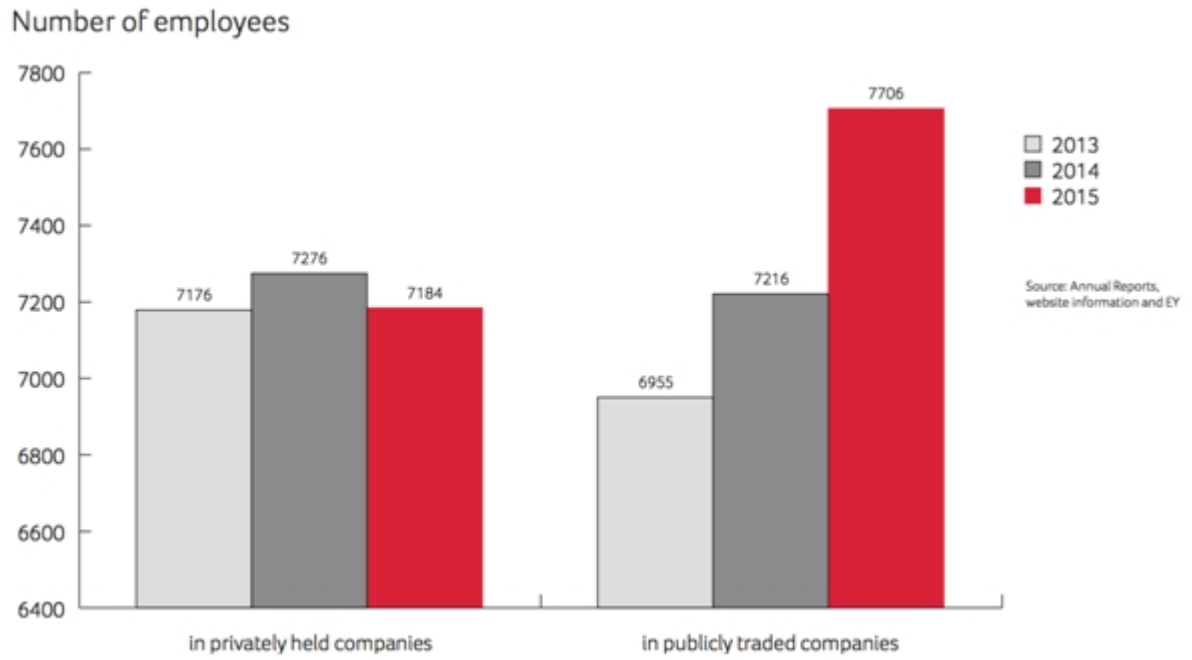
The Swiss Biotech Associationâ??s Nic Alexakis describes Switzerlandâ??s thriving biotech scene and extensive support infrastructure, while also highlighting the gaps around early stage funding and the ability of different cantons to collaborate on economic development.

Switzerland of course has quite the reputation as a hub for biotech activity â?? how competitive is the country amongst the worldâ??s leading biotech hubs?

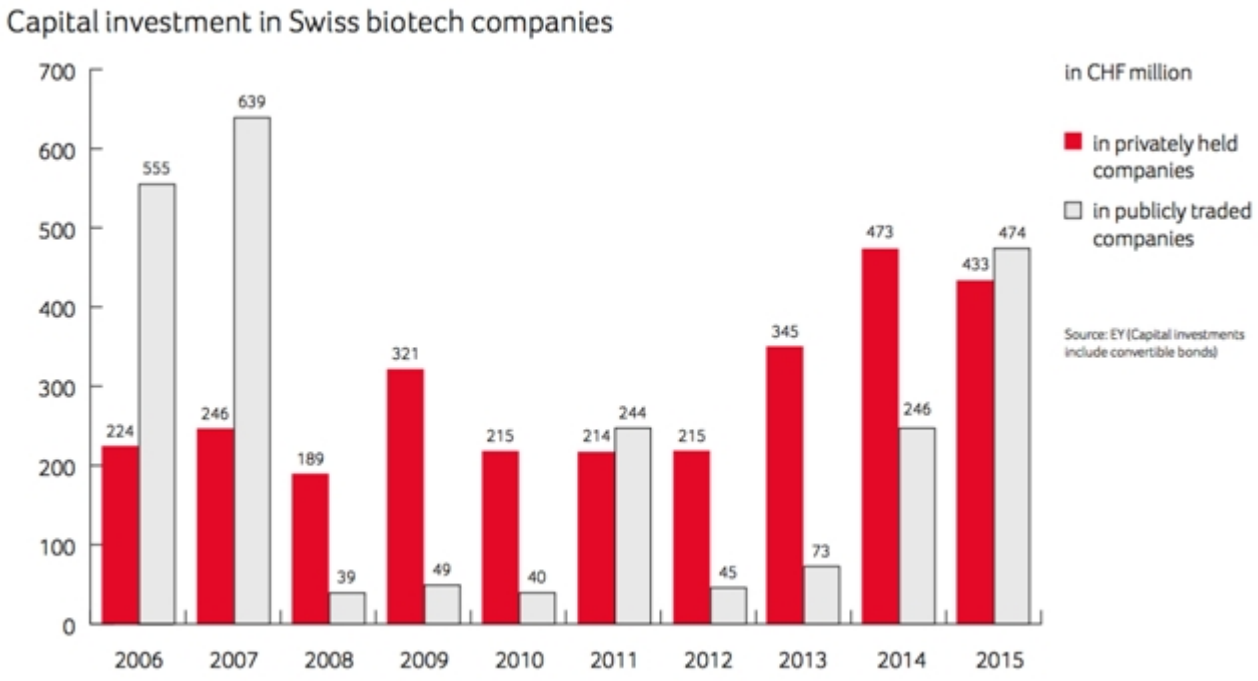
Switzerland is certainly good at innovation, and the country has been endorsed as the #1 innovation environment by the European Commission among other entities. This recognition is quite important and the biotech scene, which came a bit late to Switzerland, has been able to ride this wave to some extent. Certainly Switzerland has now made it into the â??premier leagueâ?? of biotech hubs in the world, alongside Boston/Cambridge and California in the US, Oxford/Cambridge in the UK, and the German, French, and Dutch biotech communities.

Today, the Swiss biotech industry is primarily in red-biotech, although there is some white biotech activity as well. Given Europabioâ??s agenda to help improve sustainability through the use of industrial biotechnologies, we are seeing the white biotech side becoming a bit stronger. For now, there is a moratorium on green biotech which will be revisited in 2018 â?? however it is looking likely that given the aggressive approaches of some of the green biotech giants we may end up with a permanent ban on gene-modified foods. However, with the high level consolidation in the industry,

Bayer buying Monsanto and China Chem buying Syngenta, we will have to see how the industry settles.



Today, we have about 400 biotech companies operating in Switzerland at various stages of development, and in the last two years we have seen a lot more startups. The industryâ??s workforce totals close to 50 000 people, and the financing environment has always been fairly strong, with well over CHF 400 (USD 415) million in 2015. Unlike many countries, we see private investment in Switzerland is much more stable than public funding, which varies significantly from year to year due to political budgetary cycles. Unfortunately, there is still a bit of a gap in the funding cycle for start-ups and it can be a bit difficult to get the ball rolling; since we do not have the same VC culture here as in the US for instance, companies must find a private lead investor first, then a few co-investors â?? either individuals or companies â?? to get them to an IPO.



What would you highlight as the main strengths of the Swiss innovation ecosystem?

We have four official languages, which has been an asset for our country to engage in international trade for hundreds of years â?? which has been essential as weâ??re a relatively small country on our own. Yet, within this small size we have multiple centers of excellence with different strengths within a relatively small geography, and of course we have fantastic infrastructure linking everyone very effectively.

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With the linguistic and cultural variations across the different regions, not to mention the specific research focuses and strengths of different institutions, each region has its own strengths and weaknesses. In the German speaking cantons, particularly around universities, there is a bit more of a sense of possessiveness of research than in French and Italian speaking Romandie, where you see a more open, collaborative and relationship driven environment. Of course many feel that the German cantons are more direct and transparent, whereas the Romandie tend more towards embellishment and exaggeration.

Certainly we have the cluster density to yield strong synergies and ecosystem effects around multiple Swiss cities. Each of our top universities and research institutes such as the ETH Zurich, EPF de Lausanne, research institutes like the Swiss Tropical Public Health Institute and the Friedrich Miescher Institute for Biomedical Research in Basel are significant sources of research material of interest to life science companies. They are constantly looking for private sector development partners to further develop and commercialize their research, and in fact the Swiss Biotech Associationâ??s website serves as central listing platform for the universities to advertise the technology they are looking to license out. The Commission for Technology and Innovation (CTI), which will be rebranded as InnoSwiss in the next two years, has become a key institution in this space helping to connect academic output with private sector innovators; their pitch has been that you can nearly half your R&D cost by collaborating with our research institutions, and footing the bill for one or two high capital pieces of equipment or technology.

And conversely, where do you see the primary weakness or gaps?

However, this diversity, which can also be seen as fragmentation, can also be a drawback. Politically, Switzerland is divided into 26 cantons, and in many ways the cantonâ??s have much more power than the federal government. Thus economic development and public investment in research and innovation is largely controlled at the cantonal level rather than at a national level â?? this doesnâ??t always fit with the spirit of innovation and entrepreneurship which has driven much of Switzerlandâ??s success. Each canton thinks they are the best, so rather than cooperating they compete; this has both benefits and drawbacks.

Foremost among the drawbacks in this regard has been the difficulty with which the Swiss biotech and wider life sciences communities have been able to band together for economic promotion initiatives. As the Swiss Biotech Association, we have limited funding of our own as regional cluster organizations around the clusters in Geneva, Basel, the greater Zurich area, and Ticino areas for example receive support from the cantonal economic development teams. Some years the clusters have supported us and we have been able to have a nice stand on behalf of all of Switzerland at conferences like Bio, however the last few years this has not been the case. To get an idea, Switzerland Global Enterprise has a budget of about CHF 4 (USD 4) million, while cantons have similar international business development budgets of CHF 55 to 60 (USD 56 to 61) million.

We see some degree of this â??siloâ?? approach at the institutional level as well. In research institutions and universities most teams are still very vertically focused, despite the general acknowledgement that translational research can be accelerated and leveraged to great effect by

cross functional teams. However, the CTI has helped to improve this situation substantially over recent years. In the past researchers in universities had almost no interaction with the Swiss National Science Foundation funded National Centers of Competence in Research (NCCRs); Michael Hengartner and Dr. Christopher Hock, respectively the president and vice-president of the University of Zurich, have done a lot to open up dialogue and collaboration between these different institutions. This has entailed significant public outreach, speaking on TV shows for instance, because given our direct democracy itâ??s important that the Swiss public understands just how complex biological research is and that all cantons will be better off collaborating and sharing the success rather than trying to win on their own at the cost of working in isolation.

What is the role of a national-level association like the SBA in this environment?

The Swiss Biotech structure of relationship for the pharmaceutical-diagnostic industry and health care

Our role is to help coordinate all of the stakeholders within the swiss biotech community, at the private, regional and federal levels, towards come of our common goals. Of course this means advocating our 200 memberâ??s interests and doing what we can to support their development â?? this includes facilitating the exchange of knowledge, research and technology between our members themselves. If you look at our board, we have three researchers and three ecosystem development specialists, so there is a balance between more of an R&D technical focus and business development topics.

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One issue we are focusing on at present is the slow decrease in the number of suppliers for the life sciences industries. This is a key issue, because if you canâ??t find a supplier who can understand and meet your needs while your still in the lab, then advancing your project will be extremely difficult. Of course the ecosystem in Switzerland is quite good in this respect, but we need to make sure that the supplier segment of the industry â??keeps upâ?• with the needs of the innovators.

Unfortunately, we have been much less active since June 2011. Prior to that point we spearheaded a Swiss Biotech Alliance which had the support of the different associations and cantonal business development offices; we met every four months and organized joint initiatives for international events. Then they decided in 2011 to refocus their investment at the more region specific level and to stop collaborating on initiatives that covered the whole of Switzerland.

This is a problem because Switzerland as a country, or as a â??cluster of clustersâ?• still needs promotion and awareness initiatives on the international stage. Still today our country is confused by some with Sweden and occasionally Swaziland, and as we have recently seen many of the largest investors end up investing in more than one canton. We all benefit from biotech investments in Switzerland, even if it is made in another canton as workers can commute daily by train across significant distances in Switzerland due to our excellent transport infrastructure.

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