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Venture competitions could help spur the cleantech revolution in Switzerland

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Massive amounts of investments in clean technologies (e.g., solar energy, electric vehicles) are needed in order to limit global temperature rise below 2°C. [Experts estimate](#) that the world needs to invest \$12.1 trillion globally over the next 25 years. To put this figure in perspective, it would require increasing the current level of investment by \$210bn per year, a bit less than Portugal's GDP.

Yet, the current funding of clean technologies is hindered by an unattractive risk/return profile compared to other types of technologies. It takes high amounts of both capital and time to prove the commercial viability of a cleantech startup (Nanda et al., 2015). To tackle this issue, it is crucial to develop a better understanding of novel financing tools available to startups. One of these new financing tools, [which we study in our recent research](#), is venture competitions¹.

The rise in venture competitions

Venture competitions are events in which startups compete to receive money, mentoring or recognition. They have become a key actor of the startup ecosystem. CrunchBase data shows that 22 percent of all Swiss-based startups created between 2006 and 2019 that secured funding won at least one round of [Venture Kick](#), the leading Swiss venture competition. The phenomenon is global. In the United States, Howell (2019) estimates that about 15 percent of startups that secure early-stage funding have won such a competition.

Changes in the investment strategy of some startup investors—also known as venture capitalists—can help explain the rise of venture competitions. Faced with falling costs of starting a venture, investors have increasingly adopted a 'spray and pray' investment approach (Ewens et al., 2018); they now provide more limited funding and governance to a greater number of startups. This new environment has facilitated the emergence of novel financial intermediaries, such as accelerators or venture competitions, that provide scalable, lower cost forms of support to early-stage startups.

Venture competitions offer participating startups two main benefits. First, they usually supply capital to the winning startups at a stage where acquiring financing is challenging (McKenzie, 2017). Second, winning a venture competition can act as certification of startup quality, providing valuable information about a startup's probability of success to both founders and investors (Howell, 2019). Which of these two mechanisms – cash prizes or certification – has more impact on the long-term success of participating startups? To examine this question, we use an anonymized sample of 987 Swiss startups that have participated in the Venture Kick competition between 2007 and 2017.

Startups particularly benefit from venture competitions' seal of quality

We find that Venture Kick has a significant impact on participating startups' business

success (measured by their survival rates and funding raised after the competition). Our results also show that venture competitions are mostly helpful because they certify startups' quality and less so because they offer cash prizes. This certification provides valuable information to both entrepreneurs and outside investors, which accelerates the termination of low-quality startups and improves external funding opportunities for high-quality startups. The limited effect of the cash prize could be explained by the fact that only the last remaining high-quality startups compete to win it. In well-developed financial systems, top-ranked winners usually also have access to more funding options and therefore might not gain much from winning a cash prize.

Science-based and ICT startups are impacted differently by venture competitions

However, the effect of the certification or the cash prize on the startups' business success vary according to the type of industry.

First, we observe that certification mostly benefits startups belonging to technology types that the competition's judges are adept at evaluating. When comparing the grades given to startups and their future success, we find that judges are able to reliably assess the quality of startups in science-based sectors like biotech, micro-nano technologies or cleantech. They seem less able to do so for startups in the

internet, mobile & software (ICT) industries. A possible explanation for this difference is that the success of science-based startups depends on elements that are more 'objective' (i.e., hard evidence of a technological advance) compared to ICT startups. As a consequence, winning or losing during the competition provides objective information about science-based startups' true potential to entrepreneurs and investors. Conversely, ICT startups do not benefit so much from the competition's certification.

Second, while winning the final CHF 100,000 cash prize does not have much of an impact on science-based startups, it turns out to be beneficial to ICT startups. Because of their lower running costs, ICT startups are much better able to take advantage of the money granted. However, this 'prize effect' remains limited. It only increases ICT startups' survival rate in the short-term without, it seems, affecting these startups' long-term prospects.

Venture competitions could stimulate cleantech innovation in Switzerland

The small number of cleantech startups taking part in Venture Kick shows that the cleantech revolution is still in its infancy in Switzerland. Only seven percent of participants are cleantech startups. Yet, venture competitions have a role to play to support entrepreneurship and innovation in clean technologies. Such help is critical because the rest of the startup ecosystem still shies away from betting big on the cleantech

sector. Indeed, despite the 2010 federal [Swiss Cleantech Masterplan](#), investments in early stage cleantech startups have failed to keep up with other sectors (see Figure 1). According to startupticker.ch's [2020 VC report](#), cleantech ventures represented only around five percent of the Swiss startups that secured a financing round in 2019.

Venture competitions' cash prizes can certainly help cleantech startups with low running cost – for example startups involved in digital technologies such as smarter grid management – to survive the crucial early years of their development. However, for the more capital-intensive clean energy startups (e.g., renewable energy production), cash prizes are unlikely to be tremendously useful. The main draw of venture competitions is that they offer an evaluation and certification of cleantech startups' quality at a low cost. This certification can, in turn, help reduce the time required for investors to efficiently screen early-stage cleantech ventures. For this to

happen, however, investors need to trust the certification to be informative. Fortunately, clean technologies are like other science-based sectors, in the sense that judges' certification is likely to be meaningful.

A call for the creation of a green venture competition in Switzerland

Given the urgency of the situation and based on the findings in our paper, we call for the creation of a venture competition dedicated specifically to clean technologies. The key to success would be to appoint judges that are experts in cleantech, so that their certification of quality will be trusted and useful to investors. While Swiss startups already have access to some [green venture competitions](#), more support is needed. Switzerland, the [world's most-innovative country](#), has the potential to become a hub of green innovation. Such a venture competition could be a catalyst for the cleantech revolution that is still slow to appear.

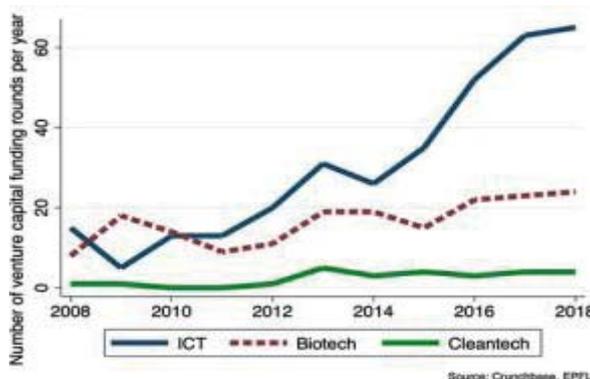


Figure 1: Swiss venture capital investments in cleantech are stalling

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