

Innosuisse

Impact analysis CTI start-up coaching

Summary

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Summary of 2018 impact analysis

Context and terms of reference

Innosuisse is the federal agency for the promotion of innovation. It has existed since 1 January 2018, when it succeeded the Commission for Technology and Innovation (CTI). The agency supports science-based innovations through several programmes, one of which provides support to science-based start-ups and companies. This support primarily consists of coaching for founders of science-based start-ups and entrepreneurship courses at universities of applied sciences for prospective founders. In 2015, in order to make well-founded assessments of the impact of selected lines of funding and to strengthen funding controls, CTI initiated evaluations and impact analyses on the funding of innovation projects (R&D projects) and start-ups and began monitoring the funding of established companies. For start-up funding, the first project phase concluded at the end of 2016 with the report entitled “CTI Impact Analysis – Lot 2: Impact Analysis on Start-up Promotion” and “CTI Start-up Monitoring 2015”¹.

The report presented here examines the results of the second phases of the impact analysis project concerning support for start-ups. In view of the strategic objectives assigned by the Federal Council requiring Innosuisse to reinforce and expand its internal impact analyses, the second phase of the project was implemented with modified aims: namely that the impact analysis would concentrate on start-up coaching with a sharp focus on its impact. In addition to the analysis presented here, conceptual fundamental elements regarding systematic impact controls on start-up coaching were compiled (this is dealt with in a separate internal report).

Subject matter, aims and design of the study

The subject matter (in the second project phase) was the funding instrument of CTI start-up coaching from 2005 to end-2017, including its interfaces with other CTI start-up funding instruments. The aims of the 2018 impact analysis were as follows:

- **Assess achievement of objectives:** To what extent did CTI start-up coaching lead to more successful science-based start-ups and thus to a sustainable reinforcement of Switzerland’s start-up ecosystem?
- **Further develop the promotion of start-ups:** To what extent can knowledge about CTI start-up coaching provide insights for the operational and, in particular, strategic development of Innosuisse’s start-up coaching?
- **Serve as a guidepost for systematic impact tests:** Which findings can be used for a systematic impact testing of start-up coaching?

The impact analysis comprised an analysis of data on start-up coaching by the CTI Secretariat and an online questionnaire (full findings) of the start-ups accepted for coaching between 2005 and 2017. The response rate for the survey was 30%.

¹ Both reports can be found on the Innosuisse website: <https://www.innosuisse.ch/inno/en/home/resultateundwirkung/wirkungsanalysen-und-evaluationen/wirkungsanalyse1.html> [URL at 15.01.2019].

Trend in applications and acceptances for CTI start-up coaching

Applications and acceptances for coaching: The number of applications for CTI start-up coaching in 2016 and 2017 (respectively 169 and 160) was down slightly from the 2014 and 2015 levels, given the unusually high number registered in those previous years. About 45% of the start-ups that applied for coaching between 2005 and 2017 were accepted.

Access and reasons for applying for CTI coaching: In 2017, 35% of start-ups (the largest proportion) were referred to the CTI coaching programme by CTI coaches. Other start-ups were made aware of CTI start-up coaching through innovation funding institutions (16%) or through the entrepreneurship courses (14%). The three most frequently given reasons for applying for CTI coaching are that it is arranged individually (68%), acquisition of the CTI label (60%) and it is free of charge (57%).

Trend in coaches: In 2016 and 2017 the pool of coaches remained roughly the same size as in the previous years, with newcomers respectively representing 12% and 20% of the total number. The proportion of women coaches was around 10% in 2016 and 2017. In terms of knowledge of their specific segments as well as business expertise, the coaches match start-ups' coaching needs. One-off areas such as legal aspects are covered by the support module. Expertise on funding is not widespread among the coaches and is only seldom accessed in CTI start-up coaching. Start-ups obtain this kind of support from other public or private coaching providers instead.

Profile of the start-ups in CTI start-up coaching

Sectors: Of the start-ups that began coaching in 2017, 32% operated in the ICT segment, 21% in Medtech/Diagnostics and 17% in Energy/Greentech.

Regional breakdown: Most of the start-ups in CTI start-up coaching are from the Zurich and Lake Geneva areas. In 2017, 38% of the start-ups were from the Lake Geneva region and 26% from the Zurich region.

Management teams: CTI start-up teams mostly comprise 2–3 members. 70% of these teams are composed of men only. 25% of the teams are made up of either Swiss only or non-Swiss only, whereas 50% of the teams are an international mix. Only recently have larger teams been accepted for coaching. The proportion of start-ups with women forming 0–25% of the total team rose from 10% to 20% between the 2013–2015 cohort and the 2016–2017 cohort.

Profile of the business ideas: Over 50% of the start-ups in CTI start-up coaching are spin-offs of Swiss universities of applied sciences, mostly from the ETH community. The social dimension of sustainability was 'important' or 'rather important' for 41% of the start-ups and the ecological dimension for 26% of the start-ups. Just over 50% of the start-ups base their business idea completely or substantially on new digital technologies while 24% indicate no relation to digital technologies. A large majority (82%) of start-ups are betting on product innovations while 30% are pursuing an innovation business model. Regarding the type of innovation involved, 24% of the start-ups indicate that it is clearly disruptive.

Benefits and assessment of CTI start-up coaching

Benefits: Most of the start-ups claimed they had obtained support in drawing up their business plan and with their strategy and scheduling, intellectual property issues and financial planning. A little more than half wanted additional support regarding financing, marketing & sales or legal aspects.

Satisfaction: 68% of the start-ups in coaching are very satisfied or satisfied with the coaching in general. 81% of the start-ups are 'very satisfied' or 'satisfied' with the flexible arrangement of the coaching. 86% of the start-ups are 'very satisfied' and 81% 'satisfied' with their coach and the other coaches involved.

Other coaching providers: 53% of the CTI start-ups also use/used other sources of public or private coaching, mainly for support with fundraising, devising a business plan and networking. CTI start-up coaching was rated by all the survey participants as more attractive than regional and local public or private providers of start-up coaching.

Length and cost of CTI start-up coaching: In the 2005–2017 period, Phase-3 coaching lasted 138 weeks on average for start-ups with no label and 97 weeks for start-ups that obtained the label in Phase 4 of coaching. That corresponds to roughly 2–3 years. According to the 2016 impact analysis, the average cost per start-up among those accepted for individual coaching in the 2009–2012 period was around CHF 21,000. The length of coaching varies from one sector to the next. In the last three years, the CTI spent about CHF 3.2 million annually on start-up coaching.

Impact of CTI start-up coaching

Survival rate: The survival rate of the start-ups that were accepted for coaching between 2005 and 2017 stands around 80%. The rate for those accepted in the 2005–2009 period ranges from 63% to 70% while for those accepted in the 2016–2017 period it ranges between 89% and 98%.

Market and sales potential: The median estimate for market potential among the start-ups of both the 2016–2017 and 2013–2015 cohorts is CHF 20–45 million within five years, compared with CHF 45–100 million among the start-ups of the cohorts before 2012. The median among CTI start-ups regarding the sales potential of their products or services in the first five years was CHF 4.5–10 million

Market presence: The portion of start-ups that have entered the market ranges from 56% (for the 2016–2017 cohort) to 86% (for the 2005–2009 cohort). The other start-ups have either not yet taken their products or services to market (40% of the 2016–2017 cohort and 11% of the 2005–2009 cohort) or entering the market is not their business strategy (3–4% of all cohorts except 2010–2012).

Personnel: In 2017, around 60% of the CTI start-ups of the 2016–2017 cohort had up to three full-time equivalents on their team. In the same year, just over 70% of the start-ups of the older cohorts had up to ten full-time equivalents. CTI start-up teams generally grow in number, as illustrated by both a comparison of the cohorts and a comparison of the start-

ups that took part in the survey in 2016 and 2018. In the two years between, these grew by roughly two full-time equivalents.

Sales and proportion of exports: While 69% of the 2016–2017 cohort indicated sales of less than CHF 200,000, the same percentage of the start-ups of the 2005–2009 cohort had sales of up to CHF 2 million. Exports are important for start-ups in CTI coaching: 36% of the start-ups of the 2016–2017 cohort generated over three-quarters of their revenue with exports. The proportion grows significantly with time.

Venture capital: For the start-ups of the 2016–2017 cohort, the median venture capital acquired since their establishment stands between CHF 0.2 and 0.5 million. For the 2005–2009 cohort, the median stands between CHF 0.5 and 1 million. Among the recently established start-ups, investments by the founding team are significant. Acquired venture capital rises continually over the years. The requirement indicated for the next five years is in most cases larger than the sum already acquired, reflecting growth strategies.

Research and development: R&D cooperation is widespread among CTI start-ups. 72% of these cooperate on R&D with universities of applied sciences and 44% with a company. 33% of CTI start-ups took or are taking part in one or more R&D projects funded by the CTI.

Patents and other protection strategies: Patents are a widely used protection strategy among the CTI start-ups, precisely in the Biotech/Pharma and Medtech/Diagnostics sectors. Besides patents, brand protection is the most frequent protection strategy. As start-ups grow older, the number of their applications for protection rights grows.

Success factors in CTI start-up coaching: The most important success factor for start-ups is the core team: 45% of the survey participants believe it is the main factor responsible for a start-up's success. 24% of all the start-ups on average estimated the availability of venture capital to be mainly responsible compared with 12% for CTI start-up coaching. Other success factors that were cited include non-monetary support (9%) and the general economic situation (7%).

2016 and 2018

The results of both the 2016 and 2018 impact analyses provide certified, evidence-based knowledge about start-ups in CTI coaching, for example about the target group reached so far and about the assessment of start-up coaching by the start-ups themselves. In particular, the surveys and analyses provided a trove of additional knowledge about the programme's impact. In instances where the results can be compared, those from the second project phase largely confirm those from the first phase. This vouches for the validity of both surveys as well as the findings and indicates continuity in the coaching programme.

Additionality: A state funding measure is additional when it provides a further benefit to the players involved, in this case start-ups. Yet choosing a method to determine each additionality is a challenge. In the first phase of impact analysis, the CTI start-ups were compared with a control group resembling them as closely as possible. Whereas significant differences existed between the two groups, e.g. regarding acquired venture capital or R&D

cooperation with universities of applied sciences, no additional impact of start-up coaching on CTI start-ups could be detected regarding their growth. In 2018 the start-ups were asked directly to estimate this. For 15% of the start-ups, coaching led to additional financial or personal investments, and for around half the start-ups' management teams it led to increased competencies (52%) and an expanded network (41%).

The results of both impact analyses and knowledge about procedural methods have been incorporated with conceptual fundamentals to compile systematic impact tests at Innosuisse.

