

Swiss Confederation

Innosuisse – Swiss Innovation Agency

The impact of Innosuisse promotion

Discussion of selected results from the phase II impact analyses

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Impact analyses provide insights for optimising and strategically reorienting funding instruments and promote communication with politicians and the public.

In 2016, the Commission for Technology and Innovation (CTI), Innosuisse's predecessor organisation, commissioned a first phase of comprehensive impact analyses to examine both the performance and effects of promotion and also the design and implementation of the funding instruments in greater depth. In the second phase in 2018, which has now been completed, the focus was on the impact aspects and benefits of the funding instruments.

The analyses conducted to date have also provided Innosuisse with valuable information for developing an overarching concept for assessing the effectiveness of its funding instruments. It must submit this concept by the end of 2019 in accordance with the strategic objectives of the Federal Council.

A selection from the full results of the impact studies on innovation project funding, start-up coaching and start-up training ("CTI Entrepreneurship") completed in 2018 is presented and discussed in the following. More detailed explanations including all results can be found in the respective reports and summaries.

Methodology

These studies are based on comprehensive surveys of:

- a) all business partners or implementation partners involved in innovation projects completed between 2012 and 2015;
- b) all start-ups coached since 2005;
- c) all participants in modules 2–4 in start-up training (formerly "CTI Entrepreneurship") in 2016 and 2017.

The response rates were satisfactory to good (between 30% and 70%), allowing a statistically acceptable evaluation of the results. The comparison with a control group and econometric analyses for project funding and start-up training provide additional insights. The "setting of the instruments" has not fundamentally changed with the move from CTI to Innosuisse. The statements made can therefore generally be applied to Innosuisse's current promotion of innovation.

Target groups

More than half of the companies involved in innovation projects (project funding) are micro and small enterprises:

More than half of the implementation partners for project funding are micro-enterprises with up to 10 employees (31%) or small enterprises with up to 50 employees (24%). The share of large companies (250 employees or more) is about one-fifth.

Market acceleration and knowledge and technology transfer (KTT), along with market implementation, are fundamental motivations for submitting applications for innovation projects:

The acceleration of an innovation project is an important reason for submitting a project to Innosuisse, in addition to the implementation itself (49% of companies agree). It should also be emphasised that various aspects of knowledge and technology transfer play a supporting role in the submission of applications from the point of view of the implementation partners: 56% cite the development of technological expertise within the company and 35% the inclusion of the research partner's human resources as motives.

It is not entirely possible to avoid deadweight effects in project funding:

5% of economic partners say they would have carried out the project within the same framework even without Innosuisse's support, while 21% would have pushed ahead with their project in a slightly reduced form. One in five of the projects carried out nevertheless would have been financed by other external funds; half of the companies surveyed would have carried out the project without a research partner.

Start-ups coached by Innosuisse are science-based and are mostly involved in research cooperations:

The start-ups coached are highly science and research-based. More than half (53%) are spin-offs directly from research institutions – about two-thirds of them from Federal Institutes of Science and Technology (ETH). Also, three start-ups in four (72%) cooperate with universities on research and development, while 44% do so with other companies. One-third of the start-ups coached are also involved in Innosuisse-funded innovation projects.

Start-up training is too little known, the percentage of women is low:

The start-up training modules (formerly "CTI Entrepreneurship") supported by Innosuisse are known to less than 10% of students at ETH Zurich; at a university of applied sciences in western Switzerland selected for the study (Haute Ecole d'Ingénierie et de Gestion du Canton de Vaud (HEIG-VD)), this proportion tends to be slightly higher (6–16%), depending on the field of study. Women have below-average representation in start-up training. In module 2 (people interested in starting a business) the proportion of female course participants is still 30%; in module 4, where firms are in the start-up process, it is only 12%. In coached start-ups, too, the majority of founding teams

Innovation themes

does not have a female member (69%).

Innosuisse also promotes radical technologies and disruptive innovations:

Almost one innovation project in five (17%) is mainly based on radical technologies or disruptive innovations which are expected to considerably change the market or the company. This percentage is even higher among coached start-ups, at 24%. Technical or social innovations are often associated with business innovations: almost every third start-up (30%) relies on a business model innovation, while the percentage in project funding is significantly lower at 7%.

Digital technologies are particularly important in start-ups being coached:

Digital technologies are essential for almost half the business ideas of start-ups (47%). This also applies to almost one-third of the innovation projects funded (29%). Conversely, digital technologies do not play any role in a quarter of the start-ups coached (24%) and almost half of the innovation projects examined (48%).

Ecological and social sustainability aspects are gaining in importance:

A comparison of the 2012/2013 and 2014/2015 cohorts for innovation projects shows that ecological sustainability aspects in particular are gaining in importance. While the contribution was high or rather high in about one-fifth of projects in the older cohort, the same was true in over one-third of projects in the younger cohort. Among start-ups, the social dimension of sustainability is particularly high at 41%, while environmental sustainability is 26%.

Impact

Four companies out of five confirm the concrete benefits of project funding:

Almost three-quarters of the business partners surveyed rated the overall benefit of Innosuisse's funding as very high (17%), high (25%) or fairly high (28%). 18% see little or no benefit for their company.

More than half of the companies see a direct economic benefit:

The purely economic benefit of project funding is estimated by the companies to be somewhat lower than the overall benefit. Approximately half of companies (53%) rate it as high or fairly high. In terms of concrete economic variables, business partners cite the following factors, among others: increases in sales of improved products or services (50%), higher employment in research and development (41%), higher total employment (40%), productivity increases (29%), higher research and development expenditure as a percentage of sales (24%). 47% note an additional acceleration in market implementation due to the supported project.

Survey results are largely confirmed by control group comparisons:

The impact on research and development expenditure, total employment and employment in research and development demonstrated in the study are confirmed by the control group comparison and econometric analyses of subsidised and as similar as possible non-subsidised enterprises. However, the effects of the funding on overall sales growth, and in particular on innovative products, are not confirmed. In some cases, the sales growth of companies funded is in fact lower than that of the comparable control group.

Almost three projects in five are implemented on the market:

27% of the projects funded are implemented within one year of project completion, with 15% of them already on the market at project completion. Just under one-third of projects (29%) are expected to be implemented with a time lag, partly through follow-up projects. 20% of the projects are not continued or implemented in the respective companies after completion of the project.

Projects funded lead to a wide range of concrete innovation results:

Concrete results can be seen in prototypes, pilot and demonstration equipment (53%), in the development of new or improved products (53%) or in publications (35%). Concrete process innovations were achieved in 21% of projects, patents or patent applications in 19%. Innovative business model changes have increased strongly over time in the cohorts surveyed: by 5% in 2012/2013 and 17% in 2014/2015.

The strengthening of knowledge and technology transfer (KTT) and the increase in expertise are considered to be very useful in project funding in addition to market implementation:

91% of companies see an increase in knowledge in research and development, 81% of companies report stronger networks with research partners, and 60% see a concrete benefit in the generation of new innovation ideas and new projects. 22% of companies have hired employees of the research partner through the project. These results show that the benefits of project funding go beyond the more narrowly defined direct economic benefits of market implementation.

The start-ups make use of a wide range of coaching services:

The start-ups make the most use of support in substantiating their business plans (63%), strategy and planning issues (51%), intellectual property issues (49%) and financial planning (48%). Other important issues include financing, marketing and sales, and legal matters.

Coaching particularly promotes entrepreneurial skills and abilities in the management team and the development of networks:

52% of the start-ups interviewed report substantial contributions from coaching in terms of the skills and expertise needed for a start-up, while 41% report an expansion of their networks. In about 15% of firms, no impact can be ascertained in these areas. More substantial effects of coaching with regard to higher financial investments and the growth of start-ups (employees) are mentioned significantly less (15% each).

Start-up coaching contributes to the success of start-ups:

In the opinion of the start-ups surveyed, the most important factors for the success of their start-ups are the founding team (45% relative contribution to success) and the availability of equity financing (24%). The success contribution of coaching is estimated at 12% and is more significant than other non-financial support or the general economic situation.

Networks are formed in start-up training modules:

42% of the participants in module 2 (participants interested in starting a business) look for a founding partner during the module, more than half of them are successful.

The impact on start-up competence can be demonstrated:

Overall, participants rate their competences significantly higher after the course (average 4.6 on a scale of 1 to 7) than before the course (3.1).

The start-up training modules have an impact on participants' propensity to launch a firm:

The intention to found a company increases in the modules examined, but the training modules also lead to a more realistic assessment of the chances of success for some of the participants and thus to a reduction in the propensity to found a company.

Initial conclusion

The results of the impact analysis provide valuable information for designing future impact assessments:

The findings of the impact analyses underline the importance of continuous, process-based impact monitoring. Central themes such as "digital transformation", "radical technologies/disruptive innovations" or "ecological and social sustainability contributions" will also have to be taken into account. For some of the findings desired, external surveys and analyses will also be required in the future. Finally, control group surveys are valuable because they allow statements to be made on the specific impact of promotion on companies' economic success. They should also be repeated in a suitable form in the future.

Additional findings through Innosuisse's participation in future innovation surveys in Switzer-

Innosuisse and the companies it supports will participate in the Swiss survey on the innovation behaviour of Swiss companies carried out regularly by the KOF Swiss Economic Institute at ETH Zurich. This is expected to yield further valuable results on projects and companies funded, in particular on obstacles to innovation and on the need to promote it. In addition, the companies supported by Innosuisse can be compared with companies that are not supported but are as similar as possible.

Deadweight effects and target groups in project funding should be addressed in greater depth: For most innovation promotion organisations at home and abroad, deadweight effects are an important topic. They cannot be avoided completely. It is also important to keep an eye on the additional benefits of funding. Innosuisse is increasingly involved in the international discussion of deadweight effects and the benefits of promotion. This should result both in an even more targeted assessment of the effectiveness of funding and indications on how to increase this.

Increasing the proportion of women:

The low proportion of women in the innovation projects promoted by Innosuisse in general and startup promotion in particular calls for measures. This will include, but will not be limited to, communication measures. The aim is not only to raise awareness of the promotional offers, but also to demonstrate their relevance for women.

Impact must be assessed in a nuanced manner:

The results of the three studies provide a nuanced picture of various impacts. For project funding, in addition to market implementation and effects on business performance, it is particularly important to emphasise the importance of knowledge growth, knowledge and technology transfer and market acceleration.