# Evaluation of the sustainability of innovation projects (research and development projects)

## **Commission for Technology and Innovation**

## **Key facts**

In recent years, the Commission for Technology and Innovation (CTI)<sup>1</sup> has provided an average of CHF 120 million support to over 300 joint applied research and development projects (R&D projects) between universities of applied sciences and businesses. These projects are intended to help implement innovation projects quicker and with added value. The CTI provides up to 50% of project costs and reimburses research partners' expenses. The remainder of the costs have to be borne by the business partners themselves. Confederation payments averaged around CHF 350,000 per R&D project. On average, each project lasts 18 months.

The Swiss Federal Audit Office (SFAO) has evaluated a total of 81 CTI funding projects concluded between 2010 and 2014. This was done using a survey and individual interviews. The aim was to discover what had become of the former projects and which sustainable effects the CTI funding had led to.

#### One in three innovation projects was not continued

Two thirds of the projects reviewed remain relevant today, i.e. years after the end of the project, and further research and development is taking place. Various reasons explain why a third of the projects were no longer pursued. These range from technical implementation problems or shifts in research focus areas through to modifications in business strategies or changes in market requirements.

#### The "last mile" to commercial exploitation is more difficult than expected

The technical and scientific objectives of the CTI funded projects are generally accomplished satisfactorily. However, there is often a long way to go to achieve successful marketing and exploitation.

At the time of this evaluation, around a quarter of all former innovation projects are utilised on the market. Every second business partner who has so far been unable to commercially exploit a project is convinced that they will be able to generate a profit in the next few years. The analyses show that many innovation projects must expect a period of between four and seven years from the end of the CIT project before economic benefits are generated.

<sup>&</sup>lt;sup>1</sup> In 2018, the Commission will be converted into an institution under public law called Innosuisse (https://www.innosuisse.ch/inno/en/home/ueber-uns/auftrag.html).

#### CTI funding projects demonstrate a broad range of sustainable effects

What remains of CTI projects years later? The research and business partners involved benefit above all from new and strengthened partnerships, increased scientific and technological know-how and better understanding of market requirements.

90% of the research and business partners surveyed assessed the project implementation as satisfactory and are prepared to conduct future joint R&D projects. Following a CTI funded project, about one in four business partners went on to employ former research partner employees, either on a temporary or permanent basis. This ensures the relevant knowledge for the further development of a project.

#### The commercial success of a CTI funded project is initially difficult to predict

Applicants for funding must provide information concerning their project's planned commercial success when submitting their application. The information provided in the business cases mostly gives rough estimates which are based on optimistic project progress.

Furthermore, the results show that factors such as a good working partnership between research institutions and businesses, satisfactory achievement of technical and scientific objectives, as well as realistic market launch planning all contribute to a project's economic success. By contrast, unexpected technical problems and a lack of commitment and operational readiness from partners during the course of a project can impede its success. Furthermore, in these cases the challenges posed by time and funding until the effective implementation of a project in the market were strongly underestimated.

### Highs and lows of the CTI funding policy

The CTI's R&D project funding is largely well accepted by research and business partners. The administrative costs for the submission of applications through to project completion have proved to be pragmatic.

The CTI enjoys considerable discretion concerning the funding of innovation which includes the scope of the technology areas which receive funding. The vast majority welcome this discretion. The CTI also has discretion in relation to the assessment of applications. This is sometimes met with criticism, particularly if negative application assessments appear to be unclear. The CTI finds itself caught between funding innovative projects on the one hand, and providing broad financial support for Swiss research institutions on the other.

In essence, the SFAO recommends that the CTI builds and develops a rigorous impact monitoring system for R&D project funding. Effective monitoring creates added value in terms of transparency and accountability of supported projects. Furthermore, this basis makes it easier to understand the complex development processes involved in innovation projects, from an initial idea to successful creation, as well as how objectives are met.

Original text in German