

2011

CTI IN BRIEF

01

CTI PORTRAIT

PAGE 02 / 16

04

R&D PROJECT PROMOTION

PAGE 08 / 16

02

CTI INSTRUMENTS

PAGE 05 / 16

05

START-UP AND ENTREPRENEURSHIP

PAGE 10 / 16

03

USE OF RESEARCH FUNDING

PAGE 06 / 16

06

CTI STRUCTURE

PAGE 14 / 16



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Federal Department of Economic Affairs FDEA
Commission for Technology and Innovation CTI
Innovation Promotion Agency

PORTRAIT

CTI support for scientific innovation is based on the principle of subsidiarity.

The Commission for Technology and Innovation CTI is the federal agency responsible for encouraging scientific innovation in Switzerland. Part-time experts, coaches and the CTI Secretariat are committed to improving the performance of the Swiss economy. On 1 January 2011, CTI became an independent agency within the Federal Administration. As such, it has its own statutes and rules of procedure.

MISSION

CTI encourages scientific innovation in Switzerland by providing funding, advisory services and networks to improve the Swiss economy. Support is based on the principle of subsidiarity, with the aim being to develop innovations and market potential that would otherwise remain untapped without CTI assistance. The coordination of funding instruments helps to create sustainable value for the Swiss economy. The aim is to make private companies, particularly SMEs, more competitive and to improve the efficiency and performance capacities of organisations that serve the interests of the Swiss population. Implementation partners from the private sector (i.e. companies) are the first to benefit: CTI sponsors joint innovation projects that can fill a market need, achieve economic success and/or bring added value to society. CTI makes companies aware of available services and supports their initiatives. At the same time, research partners (i.e. higher education institutions and research institutes) also benefit: CTI provides funding to scientists who use research findings to develop marketable products and services.

CTI also encourages knowledge and technology transfer (KTT), guides innovation leaders in the creation of start-up companies and works to improve the economic climate for young entrepreneurs.

PROJECT PROMOTION, CREATION OF COMPANIES, KNOWLEDGE TRANSFER

CTI has three main divisions. The R&D Project Promotion Division helps to bring innovations to market by contributing funding to R&D projects where implementation partners (e.g. companies, public entities or non-profit organisations) work with research partners (i.e. public research institutes). Before approving a funding application for a given R&D project, CTI experts consider the market relevance of the proposed undertaking.

The Start-up and Entrepreneurship Division works to make scientists more aware of the possibilities of entrepreneurship. It also helps them to create their own company and develop its internal structure. It calls in experienced company founders to work as CTI coaches. Through seminars and training courses, these coaches are able to guide the development of new and highly innovative companies.

The KTT Support Division encourages the mutual transfer of knowledge and technology between higher education institutions and companies wishing to pursue innovation projects and develop their start-up ideas. It brings partners into contact with one another and establishes information platforms. It also assigns mentors and provides support to selected national networks.

INSTITUTIONAL PARTNERSHIPS

International dynamics have created a situation where access to international innovation sources, funding and markets is becoming increasingly important. CTI's partner network includes the Swiss National Science Foundation (SNSF), Euresearch, ERA-NET member institutions, national research funding agencies outside of Switzerland, the Swiss Federal

Institute of Intellectual Property (IPI) as well as agencies in and outside the Federal Department of Economic Affairs (FDEA). It also maintains close ties with the Federal Office for Professional Education and Technology (OPET), the State Secretariat for Economic Affairs (SECO) and the State Secretariat for Education and Research (SER).

CTI STRUCTURE

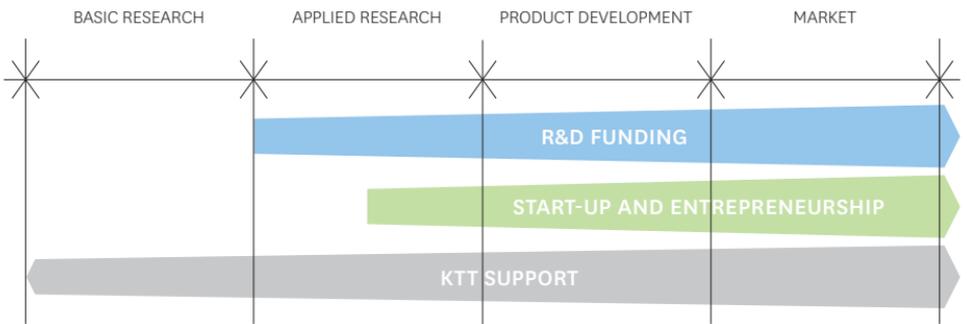
CTI has a light, efficient and effective structure based on Switzerland's militia principle. The 65 members of the CTI are experts who assess and guide innovation projects. They were chosen by the Federal Council on the basis of their knowledge and skills in business and research and work for CTI on a part-time basis. In addition, CTI has around 70 coaches who work on a contract basis to assist newly formed companies during the development phase. The members of the CTI Board manage six research fields for which funding may be awarded. These research fields serve as the frame of reference for experts and coaches. The CTI Secretariat has 23 employees who prepare case files and submit these to the CTI Board for consideration. The CTI Secretariat does the preliminary work for the CTI and the Board and provides all necessary support within the organisation.

LEGAL BASIS FOR CTI ACTIVITIES

CTI activities are based on Art. 64 (Research) of the Federal Constitution: "The Confederation shall promote scientific research and innovation." CTI is the federal agency responsible for encouraging innovation. On 1 January 2011, CTI became an independent agency within the Federal Administration. It has its own Secretariat and reports to the FDEA.

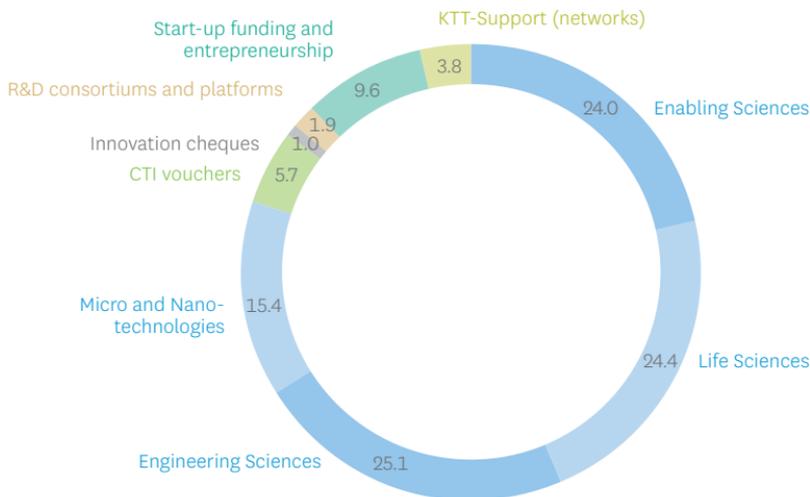
CTI INSTRUMENTS

in the innovation chain



REGULAR CTI FUNDING

In 2011



FEDERAL FUNDING CONTRIBUTION IN CHF MILLION*

2011: 110.8

In 2011, CTI's R&D Project Promotion Division reviewed a total of 1,110 applications for regular R&D project funding and special support funding. This is 300 more applications than in the previous year.

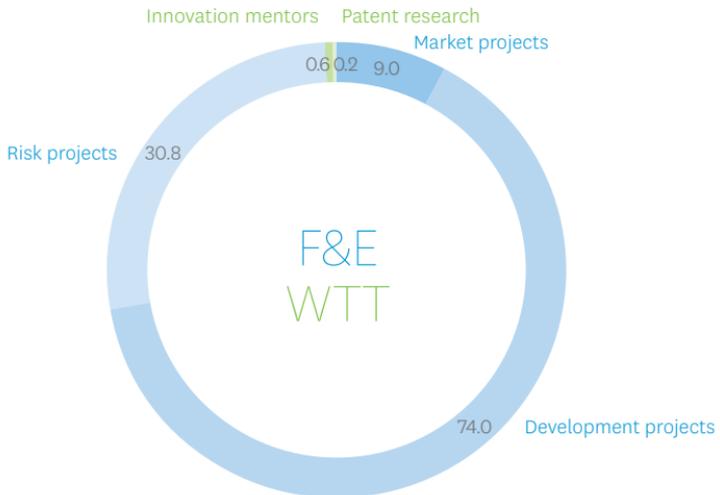
Business and research experts approved 556 applications (incl. CTI vouchers), 246 of which related to special support funding. In 2011, a total of CHF 208 million was committed to corresponding R&D projects. Over 70% of the approved applications came from SMEs; half of the companies had submitted their application for CTI funding for the very first time. Most of the approved applications related to Engineering Sciences (174), followed by Life Sciences (147) and Enabling Sciences (133).

A total of 102 applications were approved for Micro & Nanotechnologies.

* Commitments made

SPECIAL SUPPORT FUNDING

“Strong Swiss franc” 2011



FEDERAL CONTRIBUTION IN CHF MILLION*

114.5

*With the additional budget, funding was mainly awarded to innovation projects.***

* Commitments made, rounding difference in total.

** Companies received special support funding (October–December 2011) for the following: a) development projects to accelerate the transformation of research findings into potential products and services; b) innovation projects to accelerate the time to market for new products and services. The maximum duration for a) and b) is 18 months c) risk projects that had been suspended due to the poor economic situation and the erosion of margins. The maximum duration for c) is 36 months.

R&D PROJECT PROMOTION

CTI supports innovations arising from cooperation between companies and research institutes.

CTI supports scientific innovation in Switzerland using clearly defined criteria for the following research fields: Enabling Sciences, Engineering Sciences, Micro and Nanotechnologies and Life Sciences. CTI funding flows exclusively to eligible research institutes in Switzerland. The implementation partner (i.e. the company) must contribute funding to cover at least half of the costs of the R&D project.

CTI ACTIVITIES

CTI's R&D Project Promotion Division encourages the development of new products, processes and services for companies and society. CTI uses an integrated approach that requires commitment from both the implementation and the research partner. This approach is intended to ensure that innovations reach the market within a reasonable timeframe.

ELIGIBILITY CRITERIA AND PROJECT CYCLE

Before a business idea gives rise to a CTI-sponsored R&D project, a series of prerequisites and criteria must be met. Particular importance is given to implementing new technologies and knowledge. Short- to medium-term R&D projects that can quickly produce actionable results are in demand. Business and research experts review project proposals. Important factors for approval of funding include the following: economic, technical and scientific importance, market potential, contribution to more sustainable development, a clear work and financial plan as well as a cash contribution (10%) as proof of the

company's commitment to the R&D project. Applicants are informed of the experts' decision four to six weeks after the funding application has been submitted.

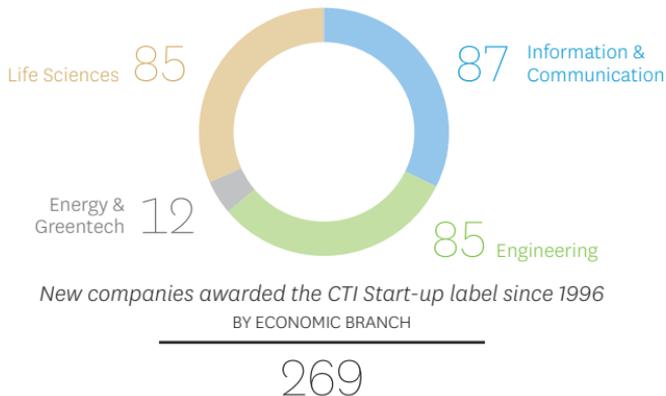
Generally speaking, funding applications may be submitted to CTI's R&D Project Promotion Division for any discipline that can contribute to scientific innovation. For each R&D project, at least one company and at least one eligible, non-profit research institute must work directly together. By assuming at least 50% of the costs of the R&D project, the implementation partner strengthens its resolve to bring the new product or service to the market and generate a profit within a reasonable timeframe. The implementation partner's contribution may include devices, licences and equipment transferred to the research partner for the purposes of conducting the R&D project. In order to keep costs under control, the current state of technology needs to be clarified beforehand. If necessary, CTI can provide guidance and support in relation to required database queries and patent searches.

Regular verifications by independent CTI experts help to guide research activities and keep work on schedule. This also enables timely adjustments to be made whenever a change of course is required.

A final report is drafted upon completion of each R&D project. This report documents the specific solution. Additional information, factsheets and instructions regarding project funding, the application process, CTI wage levels and all application forms can be found at www.kti.admin.ch > *Project promotion*.

START-UP AND ENTREPRENEURSHIP

2011 in figures



In 2011, twenty-six new companies received the coveted CTI Start-up label. Since 1996, companies awarded the CTI Start-up label have created over 3,700 jobs and have achieved an 86% success rate.

SERVICES FOR START-UP COMPANIES

CTI HAS SEVERAL PROGRAMMES FOR START-UP COMPANIES.

The CTI Entrepreneurship Programme is intended for university graduates and professionals with interesting business ideas and provides them with coaching and training on how to create a company. Training takes place in the form of workshops and courses (e.g. practical introductory courses, semester-long courses). Participants chosen to receive support are also given the opportunity to deepen their knowledge in the United States.

The CTI Start-up Programme is intended for company founders and young entrepreneurs and provides them with individual coaching and training on how to secure funding and convincingly enter the market. An expert assesses the business idea on the basis of criteria such as market, technology, feasibility, management team and patents. If the business idea passes inspection, then the business strategy will be optimised and a detailed business plan drafted. The best companies will be awarded the CTI Start-up label upon completion of the coaching process. This is a major step towards success: the label confirms that the company's market prospects are good and that the company is a good candidate for venture capital funding. Since 1996, companies awarded the CTI Start-up label have created over 3,700 jobs and have achieved an 86% success rate.

The CTI Invest Programme is intended for young entrepreneurs undergoing CTI coaching as well as for companies that have been awarded the CTI Start-up label. It helps them in their search for start-up capital. Participants in this programme learn presentation skills and are given the opportunity to present their products and services to potential investors several times during the year. A list of foundations and prizes can be found on the CTI website under: *Start-up Promotion > CTI Start-up Partner > Seed Money/Grants.*

MYOPOWERS MEDICAL TECHNOLOGIES: ARTIFICIAL SPHINCTERS

BRIEF PORTRAIT OF COMPANY AWARDED THE CTI START-UP LABEL

Treatment of urinary incontinence is one of the most important therapeutic fields to remain underdeveloped. Founded in 2004, MyoPowers Medical Technologies SA has developed artificial muscle technology to treat sphincter dysfunction.

According to the American Urology Association, over 15 million people, mainly women, suffer from incontinence. This number is expected to increase in western countries under the effects of demographic change. In addition to physical aspects, incontinence affects the self-confidence and mental state of the patient, which can lead to isolation. In 2004, Dr Piergiorgio Tozzi and Prof. Daniel Hayoz founded the company MyoPowers Medical Technologies SA in Lausanne to overcome this problem. In September 2009, the company was awarded the CTI Start-up label.

The company has developed a medical implant to treat stress incontinence. The artificial sphincter is placed around the urethra and may be adjusted and activated remotely. This is the first product specifically designed to treat patients suffering from severe urinary incontinence. The artificial sphincter significantly improves the quality of life of patients and reduces treatment costs.

DACUDA: WORLD'S FIRST SCANNER MOUSE

BRIEF PORTRAIT OF COMPANY AWARDED THE CTI START-UP LABEL

From the design phase to a development partnership with a global company in two years: the mouse scanner from Dacuda AG was launched in record time and offers new ways to bridge the gap between printed and digital information.

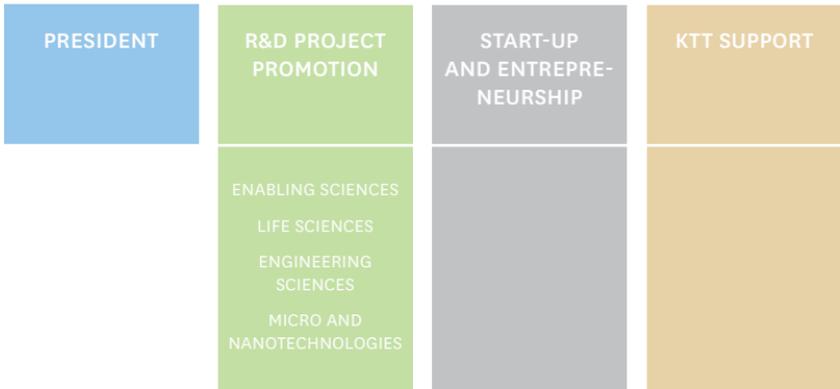
In 2008, Dr Alexander Ilic and Michael Born created the company Dacuda AG as a spin-off company of the Federal Institute of Technology Zurich (ETHZ). They were joined by graduates from ETHZ, Massachusetts Institute of Technology (MIT), Technische Universität München (TUM) and the University of St. Gallen. The vision of the Zurich-based company was to bridge the gap between printed and digital information thanks to an easy-to-use handheld device. They developed a computer mouse that also works as a scanner. The device is intuitive and works much like a paint brush. After meetings and negotiations with over twenty companies, the company founders partnered with the Korean multinational LG Electronics.

From that point forward, development progressed in leaps and bounds. During negotiations, the company even ordered the production of the prototype. In January 2011, the two young entrepreneurs were asked to present their innovative product at the International Consumer Electronics Show in Las Vegas. The breakthrough was successful. The LG Smart Scan Mouse LSM-100 has been sold worldwide since the summer of 2011. The innovative start-up company has received numerous prizes, including the Swiss Economic Award, the Swiss Innovation Prize, the Red Herring Top 100 Europe and the CTI Start-up label.

CTI STRUCTURE

COMMISSION

BOARD



CTI SECRETARIAT

CONTACT

PUBLISHER

Commission for Technology
and Innovation CTI

EDITING

Eliane Ritler, CTI
Eclat, Erlenbach ZH

STATISTICS

Adrian Berwert

CONTACT

info@kti.admin.ch

CONCEPT, LAYOUT

Eclat, Erlenbach ZH

In the interests of greater readability, no gender distinctions are used. In each case, it is understood that both men and women are being referred to.

Commission for Technology and Innovation CTI
Innovation promotion agency
Effingerstrasse 27
CH-3003 Berne
www.kti.admin.ch

© CTI June 2012