



THE **START-UPS** OF THE STI FOUNDATION – CREATING **ECONOMIC GROWTH AND JOBS**

—
May 2018

Stiftung für technologische Innovation
Fondation pour l'innovation technologique
Foundation for technological innovation

STI

Preface

For over 10 years, the STI Foundation has been successfully involved in the creation and development of start-ups in the capital region of Bern.

Since it was founded in 2005, more than 100 start-ups have taken the opportunity to pitch in front of the STI board.

Almost half of them were able to convince the board of their technological concept and received STI seed money to support their business. The amount of jobs created by these start-up companies is currently in excess of 150.

This booklet provides a platform for STI start-up entrepreneurs to present their activities and valuable contributions to the economic region of Bern.

Some Numbers

50

ongoing loan-financed projects

10

projects evaluated by the STI Foundation board every year

15

projects currently in repayment

2011

saw the start of the first repayments

May 2018

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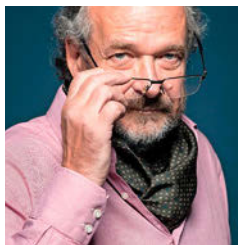
The STI Foundation

The STI Foundation

- ... is on the lookout for people with new ideas, innovative creativity and an entrepreneurial mind-set: people who want to develop and set up a technologically-oriented business.
- ... provides support for innovative start-up founders that are based in the business and residential area of the Espace Mittelland region (Cantons of Bern, Solothurn, Fribourg, Neuchâtel and Jura).
- ... offers early-stage financial support for start-up founders in the form of interest-free seed money loans for up to 8 years, as well as coaching.

Our goal is to guide innovative projects with market potential from the early phases of development along the path to success.

Thanks to the generous commitment of the BEKB | BCBE, the STI Foundation is able to make a major contribution, attracting technologically innovative companies to settle in the Espace Mittelland region and create attractive jobs.

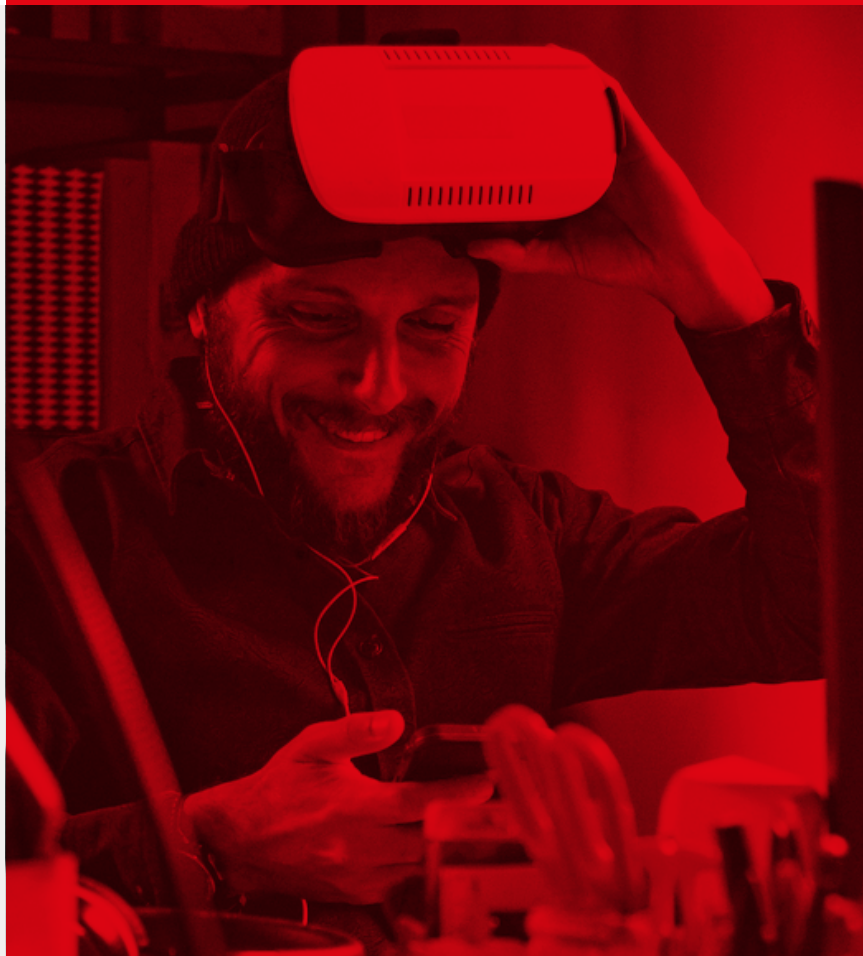


Members of the STI Foundation



The newest board member, **Elmar Mock** (shown on the left), is the inventor of the famous Swiss watch brand, **Swatch**. The Swatchmaker is also a renowned author: his latest book, **The Innovation Factory**, was published by Growth Publisher in 2017.



OUR SUCCESS STORIES



Explanation of symbols

-  The people behind the business – the founders
-  Input from our foundation
-  Awards received by the company

XOVIS

Xovis develops innovative image-based person tracking technology to shorten waiting times.

Xovis has developed a person-tracking sensor that improves operational processes: It analyzes motion on video recordings and calculates waiting times to optimize passenger flow.

The sensor is suitable for use in all places where people are required to wait, such as airports, railway stations, museums and trade fairs. For its innovative business idea, Xovis received CHF 100,000 from the W. A. de Vigier Foundation as start-up funding.

New business model

Person tracking in public places such as airports, railway stations, museums, or on public transport is used to generate statistics for marketing activities and business processes, e.g. intelligent control systems to reduce waiting times.

On the basis of the sensor system, Xovis develops software solutions to target the specific applications of different markets. The goal of Xovis is to perfect its base technology while at the same time implementing solutions with a strong focus on customer requirements.

Xovis is the worldwide market leader in waiting-time measurement and passenger flow analysis in airports today.

Support to the founder

The STI supported Xovis in the development and large-scale manufacturing of the product and helped it gain access to the CTI coaching program.

Today, Xovis sells its products to more than 50 airports in over 30 countries. Over 85 employees work at Xovis.



Founder: David Studer



xovis.com



Funding period 2010-2016



W. A. de Vigier Foundation 2012



Image-based person tracking

Xovis 3D sensors are used in more than 30 countries.



STI contribution

The STI helped the founder to realize the development and large-scale manufacturing of the new product.



The founder
David Studer





The most secure, reliable and innovative location monitoring solution

Geosatis aims to commercialize innovative technology for secure electronic monitoring, addressing the current issue of prison overcrowding and thus contributing to a better society. Offering a modular and configurable solution, Geosatis enables its customers to combine different surveillance modes to efficiently improve monitoring accuracy. With its rigid structure, the Geosatis bracelet is particularly robust and less prone to being removed, whether intentionally or accidentally.

Totally new product

By integrating the latest developments in GPS technology and reliable sensors into the patented rigid structure of its bracelet, the company is positioning itself at the forefront of the electronic monitoring market. Correctional services are actively seeking solutions to improve incarceration conditions, while being able to efficiently monitor offenders who have been released as they did not pose a threat to the community.

Employing some 50 people, Geosatis is supported by highly qualified teams that develop quality products to meet the most specific user requirements. In addition to its highly reliable electronic bracelet, the company is developing its own monitoring and management platform, a victim protection solution and specific mobile applications.

Financing and coaching

The STI Foundation has been supporting the founders of Geosatis since 2012, helping it develop and commercialize its new products and enter the markets in Switzerland and Europe.



Jose Demetrio and Urs Hunkeler



geo-satis.com



Funding period: Started in 2012



Geosatis has won several prizes including awards from the W. A. de Vigier Foundation, the Swisscom StartUp Challenge and Venture Kick



Electronic foot restraint

With the support provided by the STI, the company was able to both finance the required research and begin commercializing the product.



Leading technology

The new generation of electronic monitoring.



The founder

Jose Demetrio

ARCOptix SA specializes in realizing optical system prototypes.

As well as providing services, ARCOptix sells products such as liquid crystal systems for R&D labs, an interferometric-based velocimeter and custom free-form mirrors.

Its specific services include optical system design, MOEMS design, micro-optical component fabrication, custom liquid crystal cells fabrication, characterization of birefringent materials and spectral analysis.

At the heart of ARCOptix is its expertise in Fourier Transform Infrared Spectrometry (FTIR) for OEM and optical fiber solutions.

FTIR applications

Fourier Transform Infrared Spectrometry is used in different apparatus for a wide range of applications:

- Gas analysis in the oil, petrol and gas industry
- Food and beverage quality control
- Infrared light sources characterization
- Medical diagnosis

Working in a successful ecosystem

ARCOptix has strong partnerships with the EPFL (Swiss Federal Institute of Technology Lausanne), the BFH (Bern University of Applied Sciences), and the local watch industry. Thanks to these collaborations, ARCOptix can offer high-tech fabrication and characterization facilities as well as specialist expertise in the field of optics and micro-technology.

Financing and coaching

One of the founders of ARCOptix received a loan from the STI Foundation in 2007, as well as coaching support. The loan was paid back in full in 2014.



Founder: Toralf Scharf



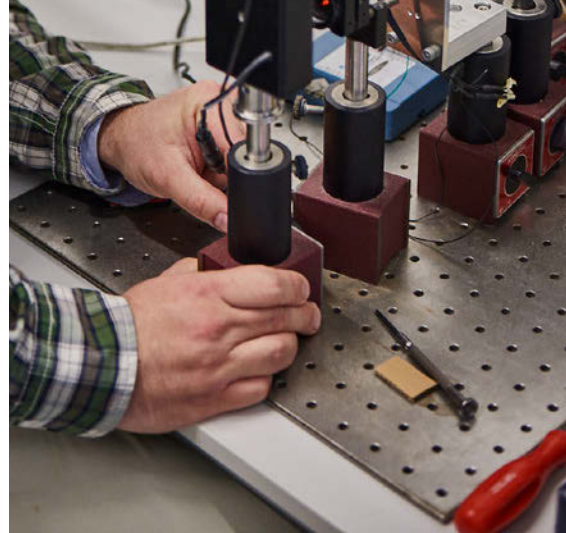
arcoptix.com



Funding period: 2007-2014



Innovation award of CHF 500,000 from the Banque Cantonale Neuchâteloise (BCN)



Spectrometers

High-performance, compact and affordable NIR spectrometers are developed and manufactured by ARCOptix.

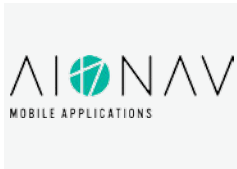




ACUBE simplifies access to parking lots, private garages and restricted areas by automatically detecting your smartphone.



Just leave your phone in your pocket, approach the gate and the door will magically open without your intervention! ACUBE also provides custom development services to let you customize your own app.



With its easy-to use app, AIONAV focuses on autonomous indoor and outdoor navigation.



The product is the AIONAV sensor system, which supports navigation without GPS.

This capability is especially important for first responders as well as for security staff in civil or military missions.





Appentura organizes and sells experience gifts for birthdays, weddings and more.




The gift is a surprise for the person being gifted. Different activities can be chosen and combined, such as a parachute jump combined with a dinner.


Expressing their view of the STI, the two founders say: *“The contribution was a huge help, as it enabled us to start the patent process, create the firm, launch a CTI project, hire IT developers, and develop our marketing strategy. The STI gave us confidence and has opened doors to further partnerships.”*


 David Correa and Pablo Molina


 acube.io

 Funding period: Started in 2017

Statement from Prof. Dr. Ulrich Walder, recipient of the STI loan: *“The support provided by the STI Foundation is extremely professional and highly straightforward. The conditions are fair and make it possible for start-ups to grow according to an appropriate time scale.”*


 Dr. Ulrich Walder

 aionav.ch

 Funding period: Started in 2013

Appentura organizes the event in cooperation with all the parties to ensure its success.

Each Appentura experience is unique!

 Stefan Flück

 appentura.ch

 Funding period: Started in 2016

ATIZO360°

Innovation Partners



360°, provides training, support and

Atizo developed a software-based innovation management method and built up a virtual community of innovators.

This new method promises customers shorter development times and better needs matching – with minimal IT expenditure. Based on this, the company, now Atizo

consulting services in the field of innovation management.

With 25,000 innovators and more than 400 successfully completed projects, the company has ranked among the market leaders in crowdsourcing since 2007.



Christian Hirsig



atizo.com



Funding period: 2008-2015



Intelligence Finance Foresight Award 2012

AXIAMO

motion that matters



Axiamo provides sensor networks to enable athletes and coaches to optimize training and objectively measure their performance.

Current application fields are elite running, football and soldier activity monitoring.

The team of three young engineers says about STI:

“Thanks to financial support from the STI Foundation in the early phases of Axiamo’s development, we were able to accelerate our entry into the market.”



Michael Gasser,
Benjamin Habegger,
Damian Weber



axiamo.com



Funding period: Started in 2015



Prizes: Venture Kick stage I,
European Athletics

BOZZIO



Bozzio is on track to establish the most popular drive-by-wire system for disabled people.

Bozzio also offers new automotive solutions for industrial applications, such as for un-manned or autonomous driving.

Regarding the STI, Matthias Hell states: *“The STI Foundation is attractive and collaborative. It offers good conditions for early-stage technological start-ups. For Bozzio, the STI played a key role in securing all the financing required for the start-up.”*



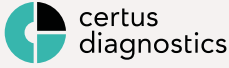
Borrower: Matthias Hell



joysteer.ch




Funding period: Started in 2009




The founder developed a molecular method for the rapid and reliable detection of pathogens.

Based on this technology, certus molecular diagnostics offers specific test kits for microbial contamination control in the food and pharmaceutical industries.

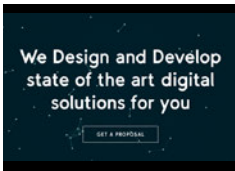
The rapid tests can be used directly at the doctor's and veterinarian's office for point-of-care diagnosis of infectious diseases in animals and humans.

 Dr. Samuel Zürcher

 Funding period: Started in 2017

 Venture Kick 2017, W.A. de Vigier Foundation 2017

coteries · Lab




The mission of Coteries is to provide artists with the right tools to entertain their fans and to win their support.


Coteries initially launched its mobile fan club of musicians, which was a unique, innovative and direct way for the artist to connect with fans.

specializing in the design, development and marketing of mobile applications, websites and prototypes (so-called minimum viable products). Since then, Coteries has launched a new venture – Planify, a group travel mobile application.

On the STI, CEO Sébastien Flury stated: *"The STI Foundation gave us the boost we needed at a very crucial moment!"*

In 2015, the company pivoted itself into a digital agency

 Sébastien Flury

 coteries.com

 Funding period: 2014-2016



Niedal audio lab AG [formerly dafraud GmbH] develops audiophile units for demanding audio applications.

The company's top priority is to ensure the highest sound quality at an affordable price while retaining the full emotional impact.


digital-to-analog converter DAC1 from Purson.


Daniel Frauchiger, CEO of niedal audio lab, states: *"Thanks to the support of the STI Foundation, we can further develop the challenging process of digital-to-analog audio conversion."*



The products of niedal audio lab are based on the highly respected

 Daniel Frauchiger

 dafraud.ch

 Funding period: Started in 2017





The aim of ennos is to develop and distribute a highly efficient, portable solar pump for small-holder irrigation and domestic water supply in developing countries.





ennos promotes the use of CO2-free, economical technology that combines income,

productivity and labor-saving benefits and a more sustainable use of energy and water.

 Karin Jeanneret Vezzini

 ennos.ch

 Funding period: Started in 2015

 Among the three finalists for the Pioneer Award from ZKB and Technopark Zurich 2017




Gonnado markets leisure activities on the internet [gonnado.com] and offers a retargeting advertising network [gonnado.com/ads].




The platform enables behavioral targeting, whereby individuals are offered leisure activities matching their interests and requirements.

The founder says of the STI: *“During the important early phase of gonnado, the STI Foundation enabled us to develop the new product. This allowed gonnado to enter the market and attract investors to the company.”*

 Samuel Mäder

 gonnado.com

 Funding period: Started in 2011



Hastema focuses on the development and production of products for railways, including test equipment for track switches, a dynamic weighing system and train monitoring.




In addition, hastema offers support for research and development, design and engineering, and industrialization

as well as the manufacturing and assembling of mechatronic devices. Its specialist expertise and specific infrastructure enable the provision of industrial services.

Stefan Loosli, CEO of hastema, said of the STI: *“The STI Foundation gave us staying power. Thank you!”*

 Stefan Loosli

 hastema.com

 Funding period: 2006-2017




IPS Biopharma AG is a Swiss biotech company focusing on developing novel vaccine adjuvants.

The first application is for inCVAX, an in-situ therapeutic cancer vaccine for metastatic solid tumor cancers. inCVAX utilizes a two-injection procedure into any one solid tumor that teaches the immune system to




identify and eliminate the cancer, wherever it may be in the body.

IPS Biopharma AG is using the STI loan to conduct key mechanism-of-action research to position the company for clinical trials and follow-on funding from the investment community.

 Tomas Hode

 ipsbiopharma.com

 Funding period: Started in 2015




Showering with heat recovery: The slim Joulia inline shower drain channel contains a scalable heat recovery module, invisibly integrated into the floor.


The product efficiently recovers heat energy from the warm shower water as it goes down the drain. This ensures improved comfort while using up to 42% less energy.




The Joulia team reports that the STI Foundation enabled the development of heat recovery technology for shower trays, and later for an inline drain, to significantly reduce energy consumption of households at little cost.

 Marcel Aeschlimann

 joulia.com

 Funding period: Started in 2012

 Several prizes, including the Watt d'Or, Clean Tech Media Award, Design Prize Switzerland



Konduko is a content-powered lead generation solution for the trade show and events industry.


Using the latest in proximity technologies, Konduko transforms digital information exchange in busy mass-traffic environments – capturing interactions and data




with a simple touch of a visitor's badge against a Konduko reader.

A unique one-to-one 'digital handshake' takes place: the visitor's interests and information are transmitted to the exhibitor, while the exhibitor's product information is transmitted to the visitor.

In 2015, during the initial phase, Konduko stated: "The support provided by the STI Foundation is key to help us transition from the development phase to the go-to-market phase in optimal R&D conditions."

 Matthew Harris

 konduko.com

 Funding period: Started in 2016


MOWA
www.modularwalking.com





MOWA's product is a modular orthosis that can be precisely adapted to the patient's needs.

The MOWA system also includes a cloud-based platform with an app, a gait analysis tool and 3D shape software.

Responsible for research and development, production, marketing and sales, MOWA Healthcare AG will implement the further stages of development to ready the product for series production.

 Jan-Hagen Schröder

 modularwalking.com

 Funding period: Started in 2018

 **NAVISWISS**





Naviswiss develops, manufactures and markets a new generation of miniaturized navigation systems for minimally invasive surgery.

Its range includes hand-held measuring systems to support and enable quality control of orthopedic interventions, as

well as navigation systems that support new surgical procedures with greatly improved accuracy and ergonomics.

This means less pain, shorter healing times and lower overall costs.

 Christian Walsoe

 naviswiss.eu

 Funding period: 2008 - 2016

NEEO[®]



NEEO is a Swiss start-up company focusing on usability in the area of home automation and the internet of things (IOT).

NEEO is the simplest way to connect and control all the devices in your home.

With support from the STI Foundation, NEEO was able to complete the development phase and enter the market in 2015.

 Raphael Oberholzer

 neo.com

 Funding period: Started in 2014

 W. A. de Vigier Foundation 2014, Red Dot Award 2015



Vadetech is active in research, development, prototyping and engineering.

Its main innovation takes the fundamental application of transduction of vibrations, and uses it in the field of active noise control with outstanding results.



Thanks to this innovation, the active noise control system can be contained in a compact unit, perfect for existing installations. It also enables nuisance noise to be reduced over a broad range of frequencies at low cost.



Bernard Fradin



hopman-st.com



Funding period: Started in 2017



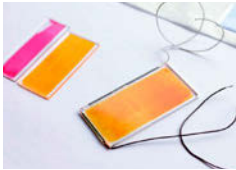
ZeoFRET® is a new, revolutionary additive for transparent plastics [polymers].

Polymers enriched with ZeoFRET® function as light collectors. Once absorbed, the light is transferred to a solar cell and converted into electrical current.

Optimized with ZeoF-RET®, the poly-

mer can be used to create or coat large surfaces, and is suitable for housings of mobile devices of any kind.

During the initial years with the STI, the company was able to successfully refine its ZeoFRET® product and file the appropriate patents.



Dr. Andreas Kunzmann



optical-additives.com



Funding period: Started in 2012



Swiss Innovation Award 2011



Plus MAT AG is a Swiss company dedicated to ensuring the sustainability of photovoltaic [PV] electricity production.

After developing a cost-effective system incorporating the necessary machines and processes, Plus MAT is now taking its first steps on the market.

The founder of Plus Mat, Dr. Yun Luo, states: *“Financial aid from the STI helped us realize the prototype pilot for the recovery of silicon.”*



Dr. Yun Luo



plusmat.ch



Funding period: Started in 2012






Based in Switzerland, regenHU is an innovative biomedical company that resulted from the joint venture between Delta Robotics Ltd and the CPA Group Ltd.





regenHU acts as a bio-system architect, leveraging novel bio-manu-facturing solutions in order to


respond to the emerging challenges

facing the biomedical industry. Following many years of research in conjunction with international universities and partners, regenHU has developed exclusive patented technologies.

-  [Marc Thurner](#)

-  [regenhu.com](#)

-  [Funding period: 2010-2015](#)

-  [Final round of "Inventer demain" of Radio Télévision Suisse](#)




SonoView is developing a new tool to support wide-spread breast cancer screening for all women.





The technology is based on a radical new use of ultrasound.


The key innovation lies in coupling new sensors able to capture information ignored by

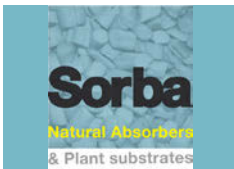
conventional B-mode ultrasound and sophisticated computing algorithms that process this information into diagnostically new and relevant parameters.

-  [Dr. Ivana Balic](#)

-  [sono-view.com](#)

-  [Funding period: Started in 2014](#)

-  [KTI success story](#)





Sorba has developed a method that utilizes corn straw to produce the natural super-absorber BABS and the peat substitute TEFA.




Sorba's aim is to position itself as a leading manufacturer of alternative casing soil in Europe and beyond

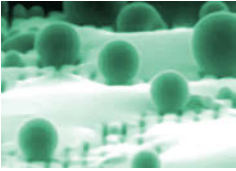
The STI loan is being used to expand production capacity and develop and market the high-quality applications of BABS and TEFA.

-  [Stefan Grass](#)

-  [sorba-absorber.ch](#)

-  [Funding period: Started in 2015](#)

SWISS-9
Scienced Coating Performance



SWISS-9 GmbH produces innovative surface functionalization products.

The omniphobic response (oil and water repellent) of the surface gives it self-cleaning or easy-to-clean properties.

Instead of collecting environmental particles, the treated surface either repels them or minimizes adhesion, making it easy to clean.



Dr. Edin Balic

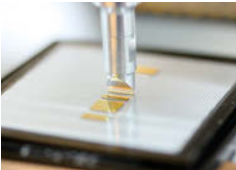


swiss-9.com



Funding period: Started in 2014

**TOUCHLESS
AUTOMATION**
special micro-handling solution



Touchless Automation is an innovative high-tech start-up, located in the heart of the Swiss watch valley.

Touchless Automation provides handling modules able to move small components without touching them.

The combination of vacuum and ultrasounds allows the levitation of any kind of material.



Mike Sabato, Fabio Depetris



touchless-automation.ch



Funding period: Started in 2017

TS3
Timber Structures 3.0 AG



After making it possible to glue wood components securely and reproducibly on the end of grain under laboratory conditions, TS3's next step is to render this technology suitable for larger components in practice.

Initial studies show that it is possible to manufacture continuous carriers and plates of any size.

Founder Stefan Zöllig says: *"With the financial support of the STI Foundation, we succeeded in launching a new company and attracting investors interested in our idea."*



Stefan Zöllig



timbatec.com



Funding period: Started in 2014

VISVAL
Visionary Powder Valves & Logistics



Visval developed a fundamentally new technology for handling and packaging powders (bulk materials) and successfully launched it on the worldwide market.

SoliValve® is the only technology allowing the fully automatic and contained filling, discharging and dosing of

powders using any type of commercially available bulk containers.

The STI secured the investment needed to manufacture the required components, especially the injection molding tools.



Jean-M. Cuennet



visval.ch



Funding period: 2007-2018

WHERE INNOVATION STARTS

To see the latest projects we have helped to fund,
visit the Supported Projects page at www.sti-stiftung.ch

WANT TO JOIN THIS LIST?

We help young and innovative start-ups.
Find out how on our website: www.sti-stiftung.ch

Start-Ups Face High Risks

Start-up entrepreneurs often have a clever business idea but not the required track record or collateral to obtain capital from a bank or investor.

There are many ways to start a business successfully, but entrepreneurs just starting out can easily become overwhelmed trying to pick the one that's right for them. They have to learn how to deal with aspects of business such as markets, purchasing, sales, production, investors and partners.

This is often unfamiliar territory, and unforeseen situations may arise at any time. It is important to be aware of the risks involved when starting a new venture.

Thanks to the STI's coaching support, entrepreneurs learn to manage these risks. Each start-up is accompanied by a personal coach who identifies their situation and provides guidance throughout the different phases of the project.

Despite receiving support from the STI Foundation, a venture may still not end up a success story. Our coaches help to identify risks and offer special STI coaching programs to provide support through uncertain phases. The aim for both partners is to make the business a success!

Objectives of the STI

The goal of the STI [Foundation for Technological Innovation] is to create economic growth and jobs in the Espace Mittelland region. Accordingly, the STI supports innovative start-up projects by offering the funding necessary to unlock the economic potential of new technological ideas.

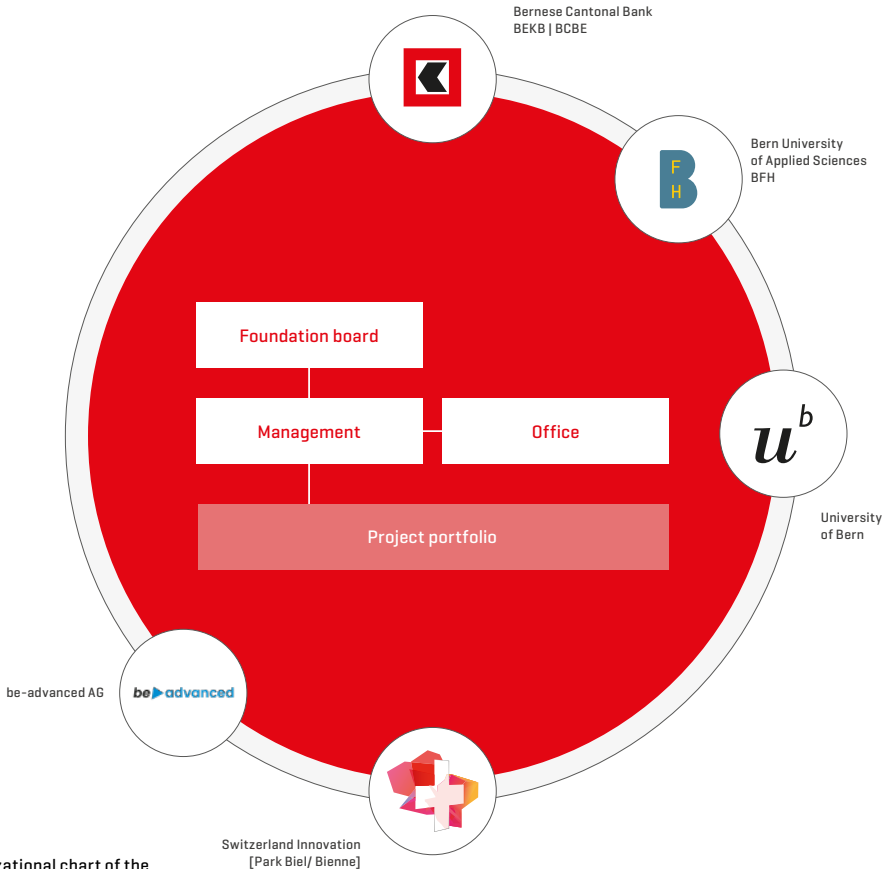
The STI cooperates closely with Bern University of Applied Sciences, as research results from Bernese universities represent important innovation potential that can be crucial for an evolving young business.

Finally, the STI Foundation is embedded within a wide network of innovative organizations and funding bodies. Our main partners are the Bern-based start-up hub be-advanced and Switzerland Innovation (Park Biel/Bienne).

Formation of the STI

The STI was founded in 2005 by the Bernese Cantonal Bank and the Department of Engineering and Information Technology at Bern University of Applied Sciences – with a foundation capital of CHF 3.5 million. The foundation capital has been increased twice and now stands at CHF 10 million.

Organizational Chart



Organizational chart of the STI Foundation as part of the regional ecosystem.

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