

Insights into  
2020 with  
Innosuisse

# DIS COV ER

A male scientist with a beard, wearing a white lab coat over a blue shirt and blue nitrile gloves, is working in a laboratory. He is holding a pipette and looking intently at the camera. The background shows laboratory equipment and a clean, professional environment.

Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra

Swiss Confederation

Innosuisse – Swiss Innovation Agency

Innosuisse is the Swiss Innovation Agency. We fund science-based innovation in the interest of the economy and society with the aim of increasing the competitiveness of small and medium-sized enterprises (SMEs) and start-ups in Switzerland.



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### Annalise Eggimann CEO of Innosuisse

“Despite coronavirus, 2020 was a very successful year for Innosuisse, with growth take place in all funding instruments. We received more applications and also provided more monetary support. We were very pleased to see that companies continued to innovate, although many of them faced major difficulties. Another highlight for me was that in the summer, the parliament voted CHF 130 million in additional funds for the years 2021 to 2024. This shows that it is important to politicians to promote innovation efforts – and that they have confidence in Innosuisse’s activities.

In 2020, we were able to prove how flexible we are and how well we can overcome adversity. The pandemic has taught us that we also need to drive digitalisation internally and become more agile with our tools. We are working on going completely paperless soon.

What I personally learned in 2020 is that you can’t take anything for granted – even mundane things like going to the theatre or having an after-work beer together. I hope our lives get back to normal soon – and that we continue to innovate vigorously because innovation is how we shape the future.”





**André Kudelski**  
President of Innosuisse



“2020 was a remarkable year. Fundamentally disruptive events occurred that were not imagined by even the most pessimistic of risk scenarios. The health and economic crises were devastating in unprecedented ways, but from these crises emerged unique opportunities.

The world endured incredible restrictions that changed the way in which we interact as humans. At the same time, we witnessed humanity’s adaptability, not only in finding solutions to mitigate the crises through the use of information technology, but also implementing them quickly to enable continuity in our daily lives. The health crisis demonstrated the importance of the digital world when it comes to solving problems quickly – and how much our society depends on this capability.

In the face of Covid-19, the greatest challenge for Innosuisse has been to offer companies and research institutions more support than ever before so that innovation can continue and even accelerate in spite of the challenging circumstances. Through concerted efforts, we were able to rapidly offer additional support and adapt our programmes in important ways that will pave the way for the years ahead.

Covid-19 provided the catalyst for Innosuisse to gain experience in managing crises and to break new ground upon which to build for the future. This can give rise to many new ideas – the ideal foundation for further ground-breaking innovation in the coming years.”

**Video with André Kudelski  
on Covid – opportunities  
for innovation**



# High demand despite the crisis

The Covid-19 pandemic also had a strong impact on Innosuisse's 2020 financial year. Accordingly, we have adapted our support to the situation as quickly as possible during the spring, moving training, coaching, mentoring and other information services into the virtual space. To ensure the continuation of their work, those responsible for ongoing innovation projects were granted project extensions and amendments, or a reduction or waiver of the cash contribution, upon request. Around half of the ongoing projects took advantage of this option. Under the guarantee loan programme, a panel of experts coordinated by Innosuisse provided the participating cantons with their knowledge in assessing guarantee applications from start-ups. Exchanges with grantees, those interested in the offer and other actors in the innovation ecosystem were replaced as far as possible with online events.

Despite the 2020 pandemic, demand for funding support from Innosuisse remained high and testifies to the in-

novative drive of Swiss researchers and entrepreneurs. In doing so, they are not only ensuring their short-term survival, but are also actively shaping the future.

## Growth in all funding instruments

Despite the pandemic and the massive slump in the economy, applications for Innosuisse's most important funding instrument, the **national innovation projects**, were in line with original expectations.

472 applications worth CHF 175.2 million (excluding overheads) were approved – an increase of 22 per cent over the previous year. Almost 400 SMEs were supported by our **mentors** in the launch of innovation projects and other funding applications.

There was also a pleasing increase of around 45 per cent to CHF 28.5 million in commitments for the **international projects within the framework of EUREKA, ECSEL and AAL**. With the launch of Horizon Europe 2021, delays in calls for proposals are expected,

which led to innovation actors being particularly eager to take advantage of the opportunities offered in 2020.

At **BRIDGE**, the joint funding programme with the SNSF, the course was set for continuation in 2020 and the funding budget was increased by a total of 50 per cent to CHF 105 million for the next four years. As part of the Discovery Projects, new projects from the social sciences and humanities are now also being funded. So far, 122 funded projects have emerged from the 16 calls for proof of concept projects. This has already resulted in 65 start-ups – a great success.

After eight years, the **Energy funding programme** came to an end in 2020. More than 1,300 researchers had been working at the SCCERs each year on average. They launched over 1,400 projects throughout the duration of the funding programme. The SCCERs have laid a good foundation for making a significant contribution to managing the 2050 energy transition.

Innosuisse realigned two funding instruments for the purposes of networking and knowledge transfer. Already 12 **NTN – Innovation Boosters**

## Video – The CEO and the president look back

To the video



Maintaining contact with the customers it funds was also very important for Innosuisse during a year dominated by coronavirus. At Empa in Thun, Annalise Eggimann and André Kudelski discover what it takes to create “World-Leading Innovation – Swiss made”. The video for the Innosuisse Year 2020 was created during this visit.

have been launched, which should result in more radical and disruptive innovation projects in important future fields. In addition, Innosuisse now supports a series of events on relevant innovation topics – **Networking Event Series** – which facilitate an active exchange between research institutions, business, and society at the national level.

Innosuisse has recorded a large increase in the number of participants in the **training courses for founders**. Module 1 “Business Ideas” in particular met with interest, being accessed over 3,100 times – mostly virtually. The significant increase in the proportion of women, which now stands at 43 per cent, is also gratifying.

The total demand for **coaching vouchers** also increased by 5 per cent compared with the previous year. A new record was set with 570 actively supported start-ups in the various coaching programmes. For the first time, 11 start-ups could benefit from **Scale-up Coaching** which launched in 2019 as a coaching programme for start-ups with high growth potential. Among other support options, it offers additional coaches with growth expe-

rience and specifically assigned to the programme, as well as support geared towards financing and activities relating to international commercialisation.

## Effect of Innosuisse funding confirmed

Not only the high demand for all offers confirmed Innosuisse’s funding activities, but also the results of the innovation survey published in December 2020 by the ETH Zurich’s KOF Swiss Economic Institute:

- The companies supported by Innosuisse rank above average in terms of innovative strength, risk-taking and productivity, and exhibit above-average innovation efficiency (cost-benefit ratio);
- The innovation projects and innovation checks are very well geared to the needs of technology-oriented SMEs and are appreciated by them;
- The funded projects are often higher than average risk and have the potential for disruptive and/or radical innovation.

## Stronger into the new funding period

The Covid-19 pandemic will continue to affect us all: Innosuisse’s primary aim is to maintain and strengthen the innovative strength and innovative propensity of SMEs and to support SMEs in the accelerated digital transformation and the associated structural change. The additional funds of CHF 130 million allocated by parliament as part of the ERI Dispatch and the impulse programme approved by the Federal Council in November are important prerequisites for providing the necessary support. In addition, the new flagship projects, with their systemic, transdisciplinary approach, will be able to provide important stimuli in thematic areas of great economic and social significance.

# What makes Swiss innovation world-class?

When it comes to innovation, Switzerland has been at the top of the international rankings for years: In the latest WEF study, Switzerland ranks third in the area of innovative capability and willingness – just behind the USA and Germany. And according to the Global Innovation Index, Switzerland is even the most innovative country in the world – for the tenth time in a row.

Its internationally renowned Swiss universities and research institutions – and their efficient cooperation with companies – help put it in this top position. But spending also plays a role: no other country invests as much per capita in research and development as Switzerland. However, Switzerland's unique dual education system is also a decisive factor in its high innovative strength, says Alois Zwinggi, Managing Director of the World Economic Forum (WEF) and, since the beginning of 2020, Chairman of the Innovation Council of Innosuisse. "Take, for example, a gardener who has worked his way up to become a forestry engineer: The combination of practice and theory means he is highly trained, knows the needs of the market and can develop innovative solutions."

Switzerland's very solid banking and financial system is another deciding factor. Switzerland's innovative capacity cannot be guaranteed by money alone. It is always a big challenge to find money for start-ups here in Switzerland.

An important factor for world-leading innovation to emerge is networking and the creation of innovation ecosystems. And for the individual companies, it is crucial that they can find employees with the right skills – and that they are prepared to keep learning new things.

Whether a start-up, an organisation, or a company that has been on the market for a while, Innosuisse brings Swiss companies together with excellent domestic and foreign research institutions – opening the door to world-leading innovation. "Innosuisse's goal is to take the technical know-how of companies to

the next level by bringing them together with cutting-edge research," says Nicola Thibaudeau, Innosuisse board member and managing director of MPS Micro Precision Systems AG. "This benefits everyone: the academic partners work on practice-oriented solutions and this equips them with skills and expertise. And the company gains access to cutting-edge research – and an entire ecosystem. That's the key to the specialisation it takes to become a global leader."

This is also where Innosuisse's new Flagship Initiative funding instrument comes in: Consortia of research and implementation partners should increasingly address topics and develop systemic solutions and new business models that are relevant to the future well-being of the Swiss population: for example, questions such as how supply chains or communication infrastructures can remain stable in the event of natural disasters or cyber attacks, or how society and the economy can be made less vulnerable in spite of demographic change. Or how the digital transformation – abruptly accelerated by Covid-19 – can be managed in areas such as education or tourism. "Flagships are more comprehensive than regular innovation projects in terms of content and are likely to be designed for the longer term. This close cooperation between partners from different disciplines promotes a holistic view of the solution to be developed and strengthens the systemic approach," explains Alois Zwinggi.

But to be world-class in a field, you also need to look outwards – as well as cross-border networking: Innosuisse is an important link to international funding programmes and supports SMEs in cross-border innovation projects or in their search for international partners. Innosuisse also allows start-ups to participate in internationalisation camps. "We also support start-ups, for example with their presence at international trade fairs," says Alois Zwinggi. "Right now, it's difficult. But trade fairs will be in demand again after the coronavirus pandemic comes to an end." Because personal exchange is very important – especially in the international market.



## Three perspectives

### The Swiss manager with a connection to the whole world

**Alois Zwinggi** is Chairman of the Innovation Council of Innosuisse and, as Managing Director of the World Economic Forum WEF and former Holcim manager, has extensive experience of Swiss innovation in an international context.



#### **What makes Switzerland a world leader in innovation?**

It is first and foremost the excellent research opportunities and capacities that we have in Switzerland. This can be seen from the number of patents per capita, which puts us in a top position. We have a very good education system – that is a very important element of our innovative capacity. We also have a very solid banking and financial system.

But I still see room for improvement: Compared with other countries, there is a lot of bureaucracy in certain areas in this country, especially when you want to set up your own company. In addition, bankruptcy is still often viewed with disapproval in Switzerland. This cultural stigma, together with the complexities of entrepreneurship issues, is not conducive to innovation. On top of that, the Swiss customs system is one of the most complex in the world. This is a challenge for start-ups that have their supply chains overseas and import to Switzer-

land. And also makes it difficult for companies to operate in other countries.

#### **What are the key requirements for a market to create world-leading innovation?**

Firstly, innovation ecosystems need to be created – there are already very good examples of this in Switzerland around the federal universities EPFL and ETH – such as Drone Valley or Swiss Food and Nutrition Valley. Increasingly, focal hubs are also being created around the universities of applied sciences, as the example of life sciences in the northwest of Switzerland shows, or the hub for tourism issues in the canton of Graubünden. In the future, more such ecosystems will need to be established.

A healthy ecosystem requires innovative research, but also users: start-ups as well as established companies. To be successful internationally, proximity to research is one of the key elements for

companies. I have seen this time and again during the years that I worked for building materials company Holcim.

“It also needs a corporate culture that encourages innovation and a willingness for lifelong learning.”

**Alois Zwinggi**

And thirdly, it needs the interest and willingness of politicians, as well as the population in general, to delve into a particular topic and to be open to it.

**What does a company need to become a world leader?**

Talent is very important. As a company, you can't claim to be the world leader in a particular subject and then only have generalists on board. You have to recruit the right people with the right skills. It also needs a corporate culture that encourages innovation and a willingness for lifelong learning. Another ingredient for world-leading innovation is a culture of accepting mistakes – an organisation that sweeps problems under the rug will have a hard time innovating in the long run. And finally, you need to be very close to your customers – to awaken their needs and anticipate them.



**You are the managing director of a company that started small and is now a world leader in medical technology and in optics. How does a Swiss SME conquer the international market?**

When I took over MPS, we considered which of our existing knowledge would be good to build upon and develop. We stopped working on products we did not have the right expertise for and concentrated on key areas we already knew a lot about – such as microsystems for watches. The company's experience in this dates back to 1936, and we had suitable factories in the Jura. Besides specialisation, however, innovation is also needed. In the beginning, we brought an innovation to the market every year – with a new patent if possible. After a few years, it paid off – and the market came to us of its own accord. You can succeed just by specialising, but usually only in the very short term.

## Three perspectives

### The CEO of a leading global company

**Nicola Thibaudeau** has been at the helm of MPS Micro Precision Systems AG in Biel since 2003 and has increased the number of its employees from 120 to 400. She also sits on various boards of directors, including that of Innosuisse.

#### **Becoming world-class is one thing, continuing to be world-class is quite another. How do you do that in the long run?**

In the watch industry and even in orthopaedics, we produce unique products. There is not much competition in this sector. Sometimes we are in competition with another developer from Japan or the USA, for example in the international tenders for the telescopes we developed for Hawaii or South America.

It is essential to develop something that is different from the rest – or patented. But patents can also be counterproductive as some customers won't buy a product for the very reason that there is patent protection – and they would then be forced to rely on a single company. If you buy a car and there is only one tyre manufacturer, you can't use the car anymore if that company disappears from the market.

Having a product that satisfies the need is half the battle. But after that you also have to be able to sell the product. If you have a unique product, but you don't think about how to get the product to market and get enough market share, it's going to be hard to succeed in the long run.

#### **To what extent does Switzerland as a business location help a company to achieve international success?**

Switzerland is a very good base for us because from here we can easily reach the markets that need exactly what we can deliver – precision and the ability to combine different innovations in a single system. As a Swiss company, you are given a lot of confidence right from the start that you will achieve your goals – be it in the development of a medical product or an optical system. And in Switzerland we can fall back on automated production. In a low-wage country, production is manual – with a lot of people involved. This requires a lot of resources and does not always result in a sustainable and qualitatively reliable product.

*"As a Swiss company, you are given a lot of confidence right from the start that you will achieve your goals."*

**Nicola Thibaudeau**

The problem is, however, that Switzerland itself is not a large market. This is in contrast to, say, the USA, where if you develop a product for hospitals there, you can test your product widely before exporting it without much effort. We, on the other hand, are developing a medical device and have received approval from Swissmedic. However, in order to sell the product abroad, we need the European CE marking. As Switzerland is not a member of the EU, there are a number of hurdles to clear to get there – combined with high costs, loss of time and a higher risk that we will not receive the approval we need at the end of it.

### Three perspectives

## The start-up founder who enables innovation in emerging markets from Switzerland

**Alisée de Tonnac** is co-managing director of the Swiss company Seedstars, which aims to transform lives in emerging markets through technology and entrepreneurship.



### **In which markets do you see the greatest potential for globally successful innovations?**

The starting position for a company in an emerging market is very different from that in industrialised countries such as Switzerland. In emerging markets, start-ups mainly operate in the low-tech sector – there are no technical universities there such as the ETH or EPFL. The innovative business ideas mostly revolve around the question of how to reach the largest possible number of consumers on a small budget. Usually it's about basic needs that need to be met. Start-ups solve local problems and take advantage of opportunities to leapfrog individual development steps that industrialised countries have already taken.

For example, the consumer goods industry in many countries has changed little in recent decades, and the supply chain still goes through many stages: importers, traders, wholesalers, retailers and so on.

E-commerce is mostly not yet an option in emerging markets, but digitisation can increasingly cut out the middle men. This is made possible by the growing availability of smartphones, most of which operate on a prepaid system in such countries. In Nigeria, for example, people watch movies with a prepaid card. In order to sell such services – such as clothes, gas cookers or agricultural goods – access to credit and payment solutions is required. Sub-Saharan Africa has become the world's leading provider of mobile money transfer services, and access to financial services has become widespread. African countries also play a major role in agricultural technology worldwide.

### **What does a company in an emerging market need to become world-leading?**

I believe that, in order to grow successfully, the challenges are the same for all entrepreneurs worldwide: You have to flex your “money muscle”



quickly to attract great talent, manage the many expenses and overcome other obstacles faced when entering the market.

**“In many regions of the world, companies must first establish the supply chain in order to sell at all.”**

**Alisée de Tonnac**

In contrast to industrialised countries, in emerging markets setting up a company is the only way for most people to make a career. And, of course, the resources are not the same. In addition to building up their company, many start-up founders first have to establish services in their environment that are already taken for granted here in Europe. An e-commerce business in this country can already operate on very efficient infrastructure, as we have secure payment methods, efficient transport routes and secure warehouses. In many regions of the world, companies must first establish the supply chain in order to sell at all. That's what happened to the winner of our 2018 Seedstars World Competition. Ghana-based company Agrocenta actually wanted to become a marketplace for smallholder farmers and international buyers. However, Francis, the company's founder, soon realised that he first had to grant loans to local farmers so that they could increase their production or invest in warehouses – to improve the quality and quantity of their products. Agrocenta now runs credit businesses and owns large department stores.

#### **How do you support companies in Asia, Africa, Eastern Europe and South America from Switzerland?**

We have established training programmes around the world as well as a funding model to help entrepreneurs build upon and grow their businesses. Through our network of experts, mentors and investors, we can adapt this support to the regions,

business areas or business maturity of the individual start-ups. We are active in all relevant key areas of a traditional entrepreneurial ecosystem (culture, financing, public sector, markets, human capital and support), but we put the focus on human capital. In our training centres, (prospective) entrepreneurs can acquire skills and knowledge and equip themselves for the challenges of tomorrow. That's because the lack of talent is still one of the main problems in these markets. To date, we have trained over 30,000 entrepreneurs and supported nearly 4,000 start-ups in 95 ecosystems.

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on specific topics  
in Discover online:**

#### **Sustainability and Innovation**

**“The federal government's sustainability strategy benefits from Switzerland being a centre of innovation.”**

**Interview with Renat Heuberger,  
member of the Innovation Council  
at Innosuisse**



# The year in brief

## January

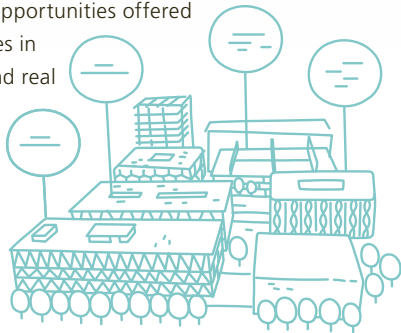


### CES 2020 in Las Vegas

Innosuisse is partnering with Presence Switzerland at the Consumer Electronics Show (CES) for the second time. 12 Swiss start-ups have the opportunity to make valuable contacts at the world's largest trade fair for consumer electronics.

### Swissbau Innovation Lab in Basel

Innosuisse is the main partner of the Swissbau Innovation Lab within the framework of Swissbau 2020. The platform for digital transformation makes it possible to experience the opportunities offered by new technologies in the construction and real estate industry.



## March

### Lockdown in Switzerland...



## February

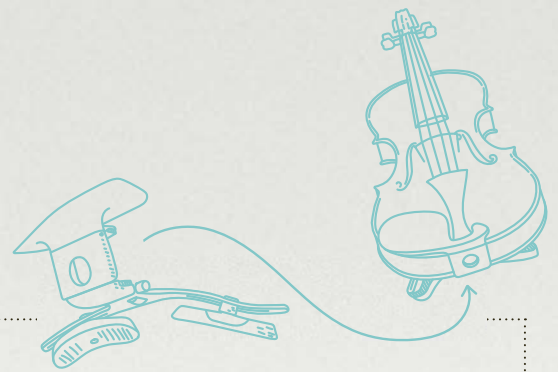
### 11 start-ups included in the second phase of scale-up coaching

The first Swiss start-ups admitted must reach their milestones in the next two years in order to achieve the growth targets. These start-ups include Flyability, Dolfinos and Aspivix.



### Kick-offs of the venture start-up competition in Zurich and Lausanne

As a founding member, Innosuisse is the main partner and co-organiser of the venture start-up competition. More than 300 start-ups submit their business cases, winners in five themes are chosen.



## April

### Coronavirus-related changes to innovation projects

Innosuisse decides to take pragmatic measures so that innovation projects can continue during the pandemic as far as possible without any interruption. 550 applications for coronavirus-related changes to innovation projects are submitted. 547 changes are approved.

### Training, coaching and mentoring are being offered virtually.



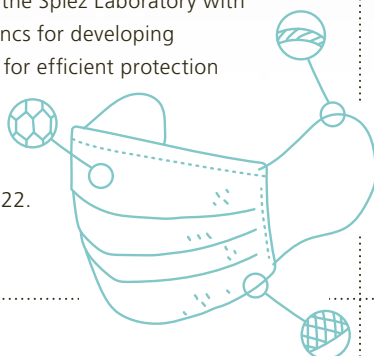
## May

### Liquidity support for start-ups now live

The cantons can draw on a panel of experts coordinated by Innosuisse for assessment of the start-ups. By the submission deadline of 31 August, it issues 122 assessments on start-ups. By the end of the year, it grants 359 loans with a total volume of almost 99 million Swiss francs to Swiss start-ups.

### Innovative protective mask concept

Innosuisse approves ReMask project from Empa, ETH Zurich, EPF Lausanne and the Spiez Laboratory with around 2 million Swiss francs for developing innovative mask concepts for efficient protection against viruses as well as technologies for reusing the protective materials. See ReMask project page 22.



## June

### Federal Council confirms Innosuisse Board of Directors

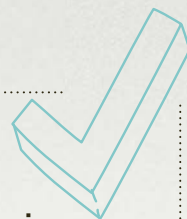
The Federal Council re-elects André Kudelski as President and all the current members of the Board of Directors of Innosuisse for the term of office from 2021 to 2024.

### RIPA revision: Innosuisse given more room for manoeuvre

The Federal Council welcomes the draft for the partial revision of the Federal Act on the Promotion of Research and Innovation. Innosuisse is to be given more leeway – in clearly defined areas – to fulfil its funding tasks.

### First webinar

Innosuisse holds the first webinar – “Starting innovation projects successfully with Innosuisse” – in French-speaking Switzerland with 86 participants.



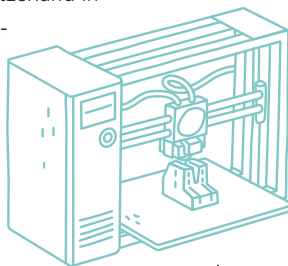
## July

### Stable application intake despite the coronavirus crisis

Many Swiss companies and research institutions have continued to focus on innovation even during the coronavirus crisis. In the first six months of 2020, Innosuisse supports 208 innovation projects with a total funding amount of 63 million Swiss francs.

### 12 NTN Innovation Boosters approved

The Innovation Boosters bring together the key players from science, industry and society in Switzerland in promising innovation areas such as block-chain, the circular economy, additive manufacturing and energy. In an open innovation culture, they allow jointly developed, concrete innovation ideas to be tested.



## August

### New to the EB: Barbla Plattner and Gérald Walti

As Head of Talent and Organisational Development and Head of Finance and Operations, they complete Innosuisse's six-member Executive Board (EB).

### AAL call

With 46 project applications, Innosuisse as part of a call receives more applications than ever before in the area of higher quality of life for the elderly. 11 projects are supported.



## September

### Virtual plenum

For the first time, the annual Innosuisse plenary session is held virtually due to Covid-19, including the networking area and project exhibition. However, the Swiss Economic Forum (Montreux) and the Swiss Medtech Day (Bern) takes place live.

### Innosuisse Guide launched

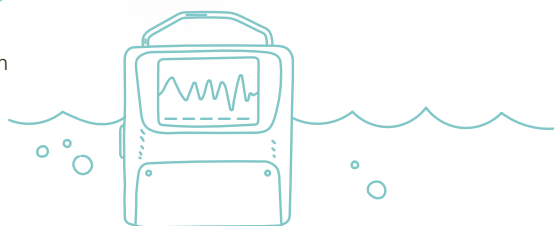
Find the right support offer in just a few steps:

[innosuisse.guide](https://innosuisse.guide)



### Eurostars call

Record number: 108 project applications with Swiss participation have been received. 62 projects are supported. See bNovate example on page 18.



## October

### Virtual implementation of Bio Europe

Bio Europe is Europe's largest platform for companies from the biotech and pharmaceutical sectors to meet and forge partnerships. Innosuisse allows 12 start-ups to take part.

### Second webinar

Due to the positive feedback and the great interest, the July webinar is repeated in October.

## November



### Announcement of the "Swiss Innovation Power" impulse programme

The Federal Council decides to launch the impulse programme through Innosuisse. By easing financial conditions for project funding, companies will be able to maintain their innovative strength during the pandemic and ensure they remain competitive over the long term.

### Virtually in contact with our funding clients

PME FORUM  
FORWARD

TOUR DE  
SUISSE  
WITH SNF

WEBINAR  
D-CH



SWISS  
INNOVATION  
FORUM

SCHWEIZER  
DIGITALTAG



## December



### Energy funding programme comes to an end

The second period of the energy funding programme is coming to an end. Between 2017 and 2020, an average of 1,350 researchers per year were engaged in SCCER and joint activities (JA). During the eight years, the SCCERs have initiated over 1,400 projects, created 41 spin-offs, installed around 330 prototypes as well as pilot and demonstration equipment, and filed 120 patents.



### NTN Innovation Booster and Networking Event Series begins

The focus of the two previous funding instruments, National Thematic Networks NTN and themed specialist events TFV, is being changed.

2021





# The promotion of innovation: **selected projects** from 2020

# AN ENTIRE LABORATORY IN A SINGLE CARTRIDGE

Bacteria are natural inhabitants of water. In the treatment of drinking water, the number of bacterial cells present in the water plays an important role. “Even in Switzerland, it takes several steps before water can be drunk without concern,” says Luigino Grasso of bNovate.

To determine the microbiological quality of the water, a testing method that dates back more than 100 years is still used, in which water samples are taken, brought to the laboratory and tested there – it can take days until results are available. Instead of bringing water to the lab, bNovate brings the lab to the water. With the support of Innosuisse, the Lausanne-based start-up has already developed the online flow cytometer BactoSense, which automatically determines the amount of bacteria on site and transmits the data online. In the event of contamination, the device immediately sends a warning.

The Eurostars project MultiSense Aqua is a further development: the measuring device, which is installed in a drinking water treatment plant or directly on the water network, is intended to provide information not only on the quantity of bacteria but also on their viability and activity and on particle size distribution.

The system can be thought of as a printer with different ink cartridges, explains Luigino Grasso. The bacteria in the water are automatically dyed with different colours – depending on the selected parameter – and then pass through a laser beam. The reflected light not only indicates how many particles are present and in what size, but also provides information on whether the bacteria are still alive or not. “We put a whole lab into the cartridge,” says Luigino Grasso. In addition to bNovate, two Viennese universities and another Swiss company, Sigrist-Photometer AG, are participating in the research for the international 2-million project.



Further support is being provided to bNovate for a “Horizon 2020 SME Instrument” project. Its goal is to bring to market a rapid, automated online analysis device that specifically screens drinking water for coliform bacteria. These bacteria are indicative of faecal contamination and are a major problem for municipal water supplies worldwide. “We are very proud of this support because the issue represents a big challenge, and we are thus playing in the Champions League of SMEs,” says Luigino Grasso. Innosuisse helped to find international coaches as part of its EEN services.

### SUPPORT BY INNOSUISSE

- Innovation Project
- International Project (EUROSTARS)
- SCCER EIP
- EEN Enterprise Europe Network: Horizon 2020 SME Instrument phases 1 and 2



“

As an SME, we work in the drinking water market, which is highly competitive worldwide. The support from Innosuisse gives us the resources we need and helps us to move forward quickly with our development.”

**Dr Luigino Grasso**, technical director  
at bNovate Technologies AG

Laboratory technician Dalila Gharbi checks the cartridges of the device that monitors the microbiological quality of drinking water.





## A HERO AGAINST FOOD WASTE

“

Anastasia and I met at the Lausanne Hotel School. We weren't very happy that so much food that was still edible was ending up in the waste bin and were keen to do something to combat food waste. In this way, the catering businesses can contribute towards reducing harmful greenhouse gases, but throwing food away also costs money.

In 2017, we founded Kitro – Innosuisse's start-up training and coaching were very helpful in building our company. The name Kitro comes from "Kitchen Hero".

Our device measures and analyses the waste automatically. It consists of a scale upon which the waste bin is placed and a camera that continuously records the contents of the bin. The software automatically detects the discarded leftovers and classifies them using machine-learning algorithms. The Zurich University of Applied Sciences (ZHAW) in Winterthur is helping us to develop the complex image data processing and machine learning technology for the Innosuisse project. Clients log in to an online dashboard where they can view the data analysed, gain insights and set goals. They can see, for example, what is thrown away, when and to what extent. This helps them run their business more cost-effectively and more sustainably.

Our scales are manufactured in the Chinese city of Wuhan. Because production was brought to a standstill by the coronavirus, time for our project was very short. But we were able to extend our innovation project by half a year. It's great that Innosuisse was so accommodating!

So far we have sold more than 80 units. In addition to hotels and restaurants, our customers also include universities, hospital kitchens and ski resorts. We'll soon be expanding into Germany, France and Austria."

**Naomi MacKenzie** is co-founder of Kitro AG

### SUPPORT BY INNOSUISSE

- Start-up training modules 2 and 4
- Initial coaching and core coaching
- Innovation Project
- NTN Swiss Alliance supports data-intensive services (data+services)



Technical manager Dominic Mösch demonstrates the Kitro system: amplified by light, the camera automatically detects and classifies food waste.





## FOUR TIPS FOR LAUNCHING A START-UP

**Naomi MacKenzie** and **Anastasia Hofmann**,  
founders of Kitro AG and trainers for the Innosuisse  
start-up training Business Creation (Module 3)

1

### GATHER THE RIGHT PEOPLE AROUND YOU

They say you shouldn't start your start-up with your best friend. But for us it was the best decision we could have made. It doesn't have to be your best friend, but it's important to team up with someone you trust, who you want to be around every day, and who believes in what you're doing together, just like you do. The same applies when recruiting other employees: they do not need to have all the skills you want at once, but they do need to believe in the common vision and have the necessary talent.

2

### SEIZE OPPORTUNITIES AND LEARN ALL THE TIME

Don't be afraid to ask questions and open as many doors as you can. This includes having the courage to ask for help. The Swiss start-up ecosystem is teeming with experienced people and great programmes that can help you with your venture. We have received a lot of support, especially from Innosuisse. As trainers for the

start-up training, we can now give something back. In our courses, we not only teach other founders; we also learn a lot from them.

3

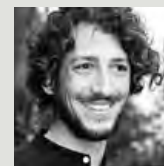
### TALK TO YOUR CUSTOMERS

Don't develop the product you think your customers want. Talk to your customers and develop the product they need and that they are prepared to pay for. That's what we learned in start-up training module 2. I was still a student at the time and at first I didn't understand why I had to spend a whole afternoon calling people. I wanted to finish our product and get it to market as quickly as possible. But of course, this is exactly the right approach in order to identify customer needs.

4

### BELIEVE IN YOURSELF

No matter how big the challenges are – this one thought should always be in the back of your mind: "Someone's going to make it, so why shouldn't it be me?"



**Lukas Domeisen**,  
Sector Manager Kitchen Triemli at the  
Waid and Triemli City Hospital

“

We use two Kitro devices at our facility – one in the dishwashing kitchen, another in the production kitchen. We can see not just what is left on the plates, but also what was produced either in too great a quantity or incorrectly. We used to record our food waste by weighing the total biomass and dividing it by the number of meals. That was costly and inaccurate. With Kitro you can see immediately what and how much is coming back. The time indication is also helpful: we could see that the patients were not as hungry in the evening and adjusted the portion size. But we see the most potential in the kitchen, for example in the preparation of vegetables for the restaurant buffet, where a lot was still left over at the end of the day.”

# “ ENQUIRIES ABOUT MASK SHORTAGES KEPT US BUSY.”

**Prof. René Rossi**, Head of the Empa Laboratory  
for the Development of Intelligent Textiles

**18 March 2020:** The Winterthur Cantonal Hospital and the University Hospital Zurich get in touch with EPFL and Empa as the stock of masks is running low. They want to know if there is a way that surgical masks could be used more than once.

The two textile industry associations Swissmem and Swiss Textiles also ask Empa for support. They were commissioned by the federal government's crisis management team to start mask production in Switzerland.



**24 March 2020:** Yesterday we spoke with Innosuisse about possible support. We call the project ReMask – short for reusable mask, based on one of the goals of being able to reuse masks. Today we met for the first time as a ReMask team – with 15 individual institutes, epidemiologists and hospitals.

The graphic shows that the types of masks that have been widely used to date – FFP and surgical masks – are only suitable for everyday use to a limited extent, and masks made of simple fabric – known as “community masks” – provide insufficient protection. We will develop a list of criteria that specifies everything a community mask must be able to do.

**3 April 2020:** The pressing enquiries about the mask shortage are keeping us busy! I have been working at Empa for over 25 years, but have never been so busy at work. Yesterday we conducted the first mask tests at the hospital. There's also a lot of administration involved. Today, the ReMask team officially joined the expert group of the Swiss National Covid-19 Science Task Force. And we submitted our project to Innosuisse.

**28 April 2020:** A few days ago, the Science Task Force published the “Community Masks Specifications and Recommendations”

Empa laboratory technician Pierrine Zeller uses red-dyed artificial saliva to test whether the mask protects against droplets.



## THE REMASK PROJECT

A Swiss-wide consortium from the research, healthcare and industry sectors is developing innovative mask concepts for efficient protection against viruses as well as technologies for reusing protective materials – not just in the fight against Covid-19, but for future pandemics as well.

The one-year project has four research objectives:

- **High-filtration efficiency** for masks that are also particularly comfortable to wear (air and vapour permeability as well as a comfortable fit)
- Efficient **virucidal coatings** – not only for masks, but also for medical textiles or antiviral covers, for example for seating in trains and airplanes.
- **Longevity:** Thanks to innovative membranes and virucidal coatings, it should be possible to wear the masks for longer and wash them more often than before and at lower temperatures – without any loss of protective effect.
- **Sustainability:** Surgical masks should be reusable and thus produce less waste. Research is also being conducted on FFP masks that are biodegradable.

policy brief. The ReMask team drew up these quality recommendations for textile masks in just one week. And today we supplemented the application to Innosuisse – focusing on a long-term strategy for mask production in Switzerland.

**8 May 2020:** The first mask type from our industrial partners, the textile companies Forster Rohner AG and Schoeller Textil AG in eastern Switzerland, meets the requirements of the Science Task Force. The production of washable community masks in Switzerland can begin!

**2 June 2020:** After Innosuisse accepted our project submission on 13 May, we are meeting for the first time as the newly formed ReMask team: the associations Swiss Textiles and Swissmem as well as 41 industrial partners are now officially involved.

**20 August 2020:** Empa, together with the testing and certification company Testex, has developed a test method in which textile masks can be tested for filter function, splash resistance, wearing comfort, reusability and textile compatibility. The masks made by Schoeller Textil AG and Forster Rohner AG are the first to be awarded the Testex label.

**29 September 2020:** Another breakthrough! Tests show improved filtration and comfort properties on a laminated nanofibre membrane for the first time. The top layer, which protects against viruses, impairs breathing only minimally.

**6 November 2020:** After Innosuisse's go/no-go review, one thing is clear: we're moving ahead! With a scientific focus on new filter systems with better filtration efficiency and high wearing comfort, fabrics that provide better protection against viruses and bacteria to make masks safer, as well as the reusability of masks – for a sustainable Swiss mask strategy.

**8 December 2020:** The first reusable textile mask is recognised as a Type I surgical mask pursuant to the EN 14683:2019 standard.

**22 December 2020:** The concept for the SNV Swiss regulation for community masks is ready. This uniform standard enables consumers to compare fabric masks from different manufacturers with regard to various parameters such as filter efficiency.

#### SUPPORT BY INNOSUISSE

● Innovation Project

Interview about the project on next page ►

“

Thanks to the rapid support provided by Innosuisse, we were much more dynamic in this challenging project. Among other things, we set up the entire mask production within a few days.”

**Prof. René Rossi**, Head of Empa Department Biomimetic Membranes and Textiles





## Selected projects from 2020

► Continued from page 23



### "WE NEVER THOUGHT WE'D BE MAKING MASKS ONE DAY."

**Emanuel Forster,**  
Co-CEO Forster Rohner AG

#### **How did you end up producing fabric masks instead of haute couture and lace lingerie?**

In March, all our customers suddenly vanished. All the shops in Italy, France, the USA and the UK closed and the next day we had nothing to do. The fashion industry depends heavily on personal contact, travel and fashion shows.

Through our factories in China, we came into contact with coronavirus early on and we knew that masks were a rare commodity. We thought about how our embroidery machines could be used for the industrial production of masks. In spring 2020, the federal government approached the Textile Federation and we were invited to Bern along with other companies. When the task force issued the minimum requirements for community masks, we were ready: we had already exchanged ideas with other textile companies such as Schoeller and carried out various tests with Empa. From May, we were producing masks together.

#### **Did your employees find the changeover easy?**

We quickly put together a cross-group project team (Forster Rohner, Jakob Schlaepfer and Inter-Spitzen): employees from technical production, designers and people who were familiar with made-to-measure products – a great, motivated team. Of course, a change like this is not everyone's cup of tea: some thought it was a stupid idea to produce masks. A year ago, none of us would have imagined that one day we would be

making masks. On the other hand, we in the fashion industry are used to thinking in the short term and working very quickly and flexibly.

#### **Was the coronavirus a burden or even an opportunity for your company?**

Even if the mask production helped us to make ends meet until the end of the year, we're still a long way off the business we would achieve in a normal year. 2020 was a very stressful and nerve-wracking year for us. Those still working had never been so busy as they were last year. In addition, the coronavirus hit individual employees and their families hard in terms of their health. And some of our customers will no longer exist once the crisis is over.

In the medium term, however, the pandemic also offers an opportunity for something new, since everything has been disrupted. We've used the time to reflect on what we could do differently and accelerated some plans that were already in the pipeline, such as building projects or restructuring. And we thought about how we could produce more sustainably in future, for example by using less water in the dyeing process.

When the pandemic is over, we'll be happy to be able to focus entirely on fashion again. As a member of the ReMask project launched by Empa, we'll also examine whether it is possible to use textile masks in the medical field in the future. Then we will be able to continue to use the wealth of experience we have built up.



SkyCell employees Christian Ardüser (right) and Florian Schäfer install sensors to measure temperature in the hybrid container.



“

Innosuisse helps us develop our air cargo containers more efficiently, more cost-effectively and in a more environmentally friendly way, to safely transport temperature-sensitive and life-saving medicines and vaccines. This is critical not only in times of Covid-19.”

**Christian Ardüser**, Head of Research and Development at SkyCell AG

## TRANSPORTING MEDICINES AND VACCINATIONS SAFELY AND SUSTAINABLY

To ensure that certain medicines and vaccines do not lose their effect, they must be stored and transported at a constant temperature. Worldwide transportation by air is one of the fastest and safest means of transport, but it also presents some challenges: it must be possible to maintain the constant internal temperature of the containers even at extremely high or low external temperatures. “If the cold chain is interrupted, the pharmaceutical products usually can no longer be used. Even the slightest temperature deviation can damage the medicines and, in the worst case, render them unusable,” says Christian Ardüser, in charge of research and development at SkyCell.

The Swiss company – founded in 2012 as a start-up and now employing over 120 individuals – develops, produces and rents out air freight containers worldwide in which the temperature remains constant for more than eight days on average. SkyCell’s hybrid refrigerated containers ensure a failure rate of less than 0.1 per cent for deliveries. Cooling is provided by an innovative storage material without electrical or mechanical components. The hybrid containers can be easily recharged in a refrigerated chamber or a refrigerated truck.

Together with the Lucerne University of Applied Sciences and Arts, SkyCell is developing a more efficient and sustainable insulation of the containers – with less weight. “A single container weighs 480 kilograms. Every kilo that is eliminated not only reduces transport costs, but also the CO<sub>2</sub> emissions of cargo flights,” says Mr Ardüser. Innosuisse supports this innovation project. “The Innosuisse mentor who helped write the application was very helpful and gave valuable tips.”

### SUPPORT BY INNOSUISSE

- Innovation Project
- Innovation cheque
- Mentoring

How the temperature  
in the container  
remains constant  
without electricity





## FROM CELLAR TO HEAT STORAGE UNIT

More than 80 per cent of the energy in Swiss households is required to generate heat – a large proportion of which is still produced by fossil fuels. The use of solar energy and other renewable sources is still low because the energy is not generated when we need it – i.e. mainly in winter.

The solution is to use seasonal storage: heat is stored in a large water tank in the summer, which can be used in winter. “Seasonal heat storage systems are still generally too expensive in Switzerland,” says Willy Villasmil, senior scientific officer at the Lucerne University of Applied Sciences and Arts (HSLU). Together with the thermal insulation specialist swisspor, his research group is developing a cost-effective and easy-to-implement solution for individual residential buildings or entire industrial sites. The idea is to convert an existing room – for example an empty cellar – into a heat storage unit. The room is insulated and sealed on the inside so that it can be filled with water and serve as a seasonal hot water tank. The water is heated in summer by energy from a heat pump, solar thermal energy or industrial waste heat.

In a first innovation project, which took place as part of SCCER HaE, a material for thermal insulation was developed that can withstand temperatures of up to 65 degrees and last up to 50 years. In the follow-up project, the HSLU and swisspor, with the support of Innosuisse, are now investigating what it would take to raise the temperature in the hot water tank to 95 degrees and increase the pressure. “The higher the temperature, the more energy can be stored and the more economically viable the energy storage system,” says Willy Villasmil. As well as material development, the project also covers topics such as the integration and management of the storage unit, for example in industrial processes.

This means the sustainable storage solution should become much more cost-effective – a key factor in encouraging more households and industrial companies to switch to renewable energy and contribute to CO<sub>2</sub> reduction: heating accounts for around 40 per cent of CO<sub>2</sub> emissions in Switzerland.

### SUPPORT BY INNOSUISSE

- Innovation Project
- Supported through the Energy funding programme (SCCER HaE)







“

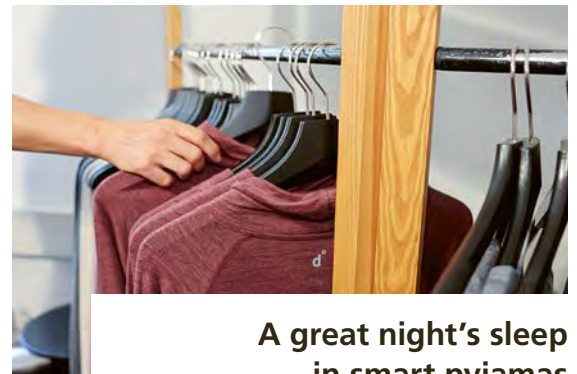
We are working on a sustainable and easy-to-implement solution for storing summer heat for the winter. The collaboration with our implementation partner swisspor was very successful right from the outset.

**Dr Willy Villasmil**, Head of Research Group at the Competence Center Thermal Energy Storage, Institute of Mechanical and Power Engineering, Lucerne University of Applied Sciences and Arts

Watch project videos



**Our lungs on a chip**



**A great night's sleep in smart pyjamas**



**Making more efficient use of the sun's energy**

Construction of the memory prototype: high-performance thermal insulation must ensure minimal heat loss and withstand high temperatures and pressure for a long period of time.

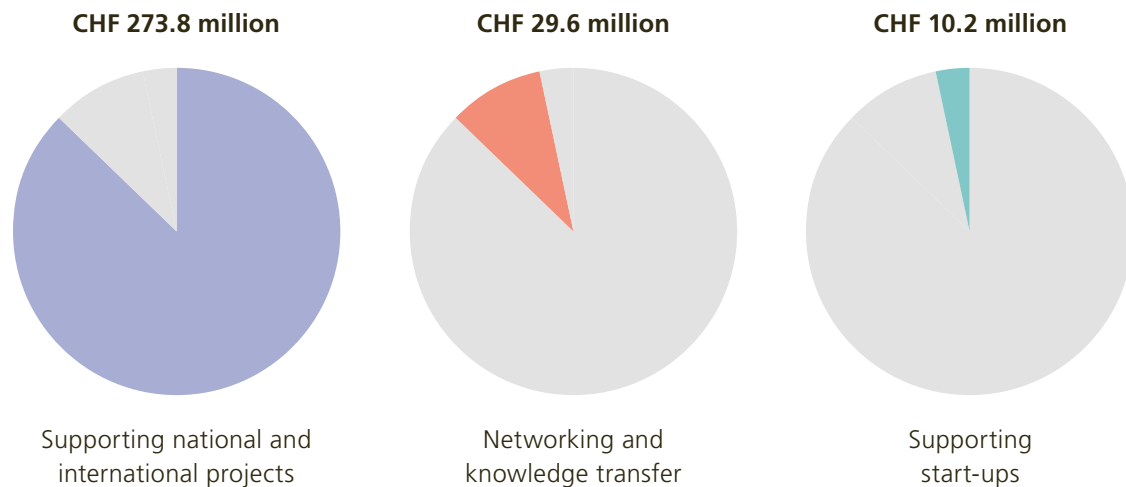


# Facts and figures: here is **how we** **promote** innovation

## Facts and figures

Innosuisse approved funding contributions amounting to **CHF 313.6 million** in 2020

(incl. overheads)



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*With its efforts in the field of networking and knowledge transfer, Innosuisse stimulates the emergence of innovation ideas and increases the input of promising innovation projects.*

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*The core of Innosuisse funding is the support of innovation projects between companies and research institutions. They can be carried out with national or international partners.*

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*Innosuisse offers training, coaching, internationalisation and trade fair services for the foundation and development of knowledge and technology-based start-ups.*

## Facts and figures

► Supporting national  
and international projects

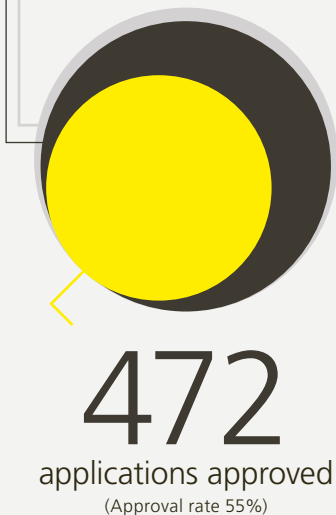
# CHF 199.8 million of funding contributions approved National innovation projects

incl. overheads of CHF 24.6 million



### Funding applications 2020

783 applications submitted\*  
858 applications assessed



#### 2019

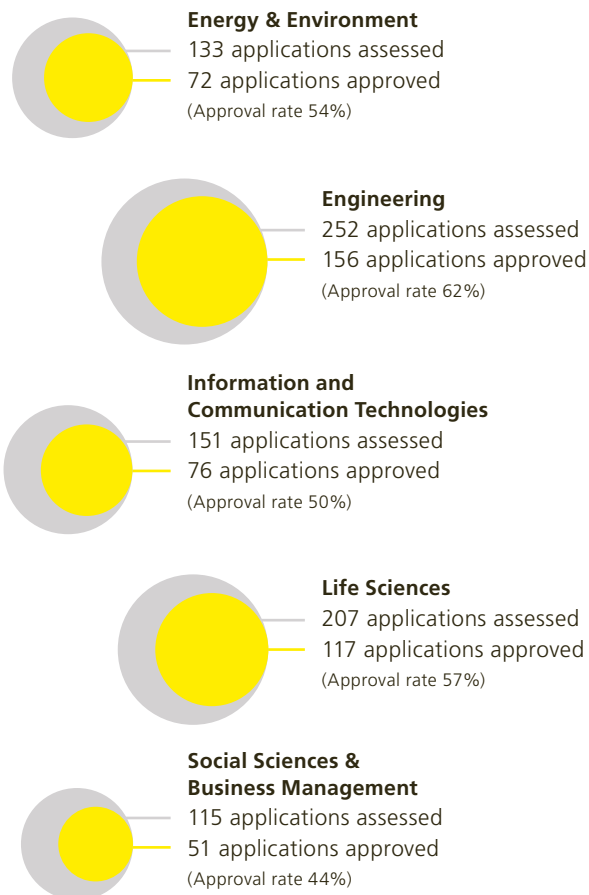
794 applications submitted  
663 applications assessed  
391 applications approved

#### 2018

488 applications submitted  
429 applications assessed  
239 applications approved

\* As a rule, applications submitted in December cannot be assessed until the following year. There may therefore be differences between the number of submitted and assessed applications within one year.

Most applications were received in the  
**subject areas** of Engineering and Life Sciences.



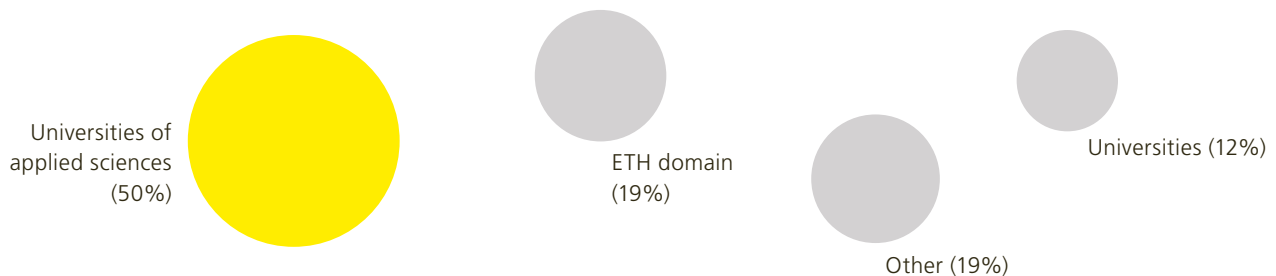
*Innovation projects  
received between  
50,000 and 1,800,000  
Swiss francs  
in 2020.*

Innosuisse has received  
**550**  
applications for coronavirus-related  
**changes** to innovation projects.  
547 were approved.

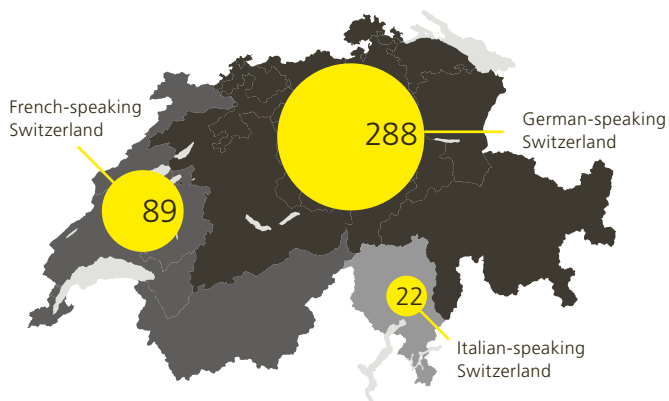
*A project extension  
was requested in  
over 80% of the  
applications. About  
two thirds of the  
approved applications  
have led to an increase  
in Innosuisse's  
contribution.*



50 per cent of the research partners participating in the innovation projects are **universities of applied sciences**.

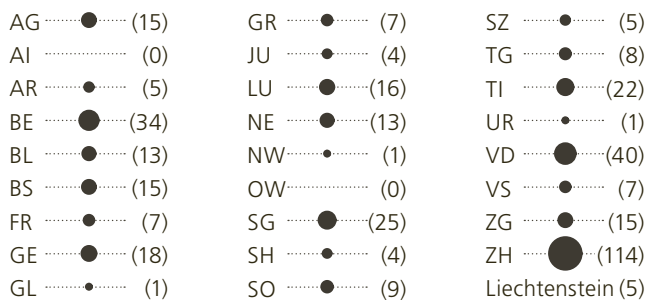


The **main implementation partners** for approved innovation projects are spread throughout Switzerland. 68 projects have no implementation partners.



**1,254**  
innovation projects  
were ongoing at the end  
of 2020.

Most of the main implementing partners come from the **cantons of Zurich and Vaud**.



*Among the approved projects, the proportion of women is 15% for the main research partners and 11% for the main implementation partners.*

CHF 27.6 million of funding contributions approved

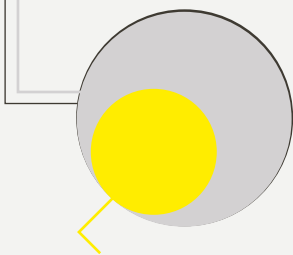
# International innovation projects

incl. overheads



## Funding applications 2020

261 applications submitted  
256 applications assessed



88

applications approved  
(Approval rate 34%)

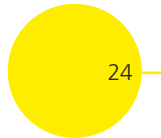
## 2019

193 applications submitted  
189 applications assessed  
67 applications approved

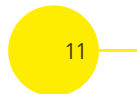
In 2020, most projects were approved in the **subject area** of Life Sciences.



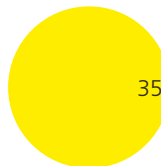
**Energy & Environment**  
applications approved



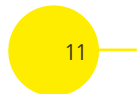
**Engineering**  
applications approved



**Information and  
Communication Technologies**  
applications approved



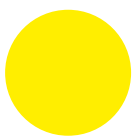
**Life Sciences**  
applications approved



**Social Sciences &  
Business Management**  
applications approved

*Innosuisse supports international projects within Era-Net, EUREKA, the AAL and ECSEL programmes and bilateral cooperation. The EU also adds an additional CHF 11.9 million.*

**51 Swiss research institutions** were involved in approved international projects.



Universities of applied sciences (16)



Universities (13)

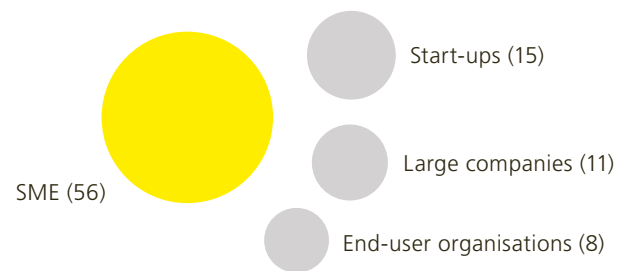


ETH domain (12)



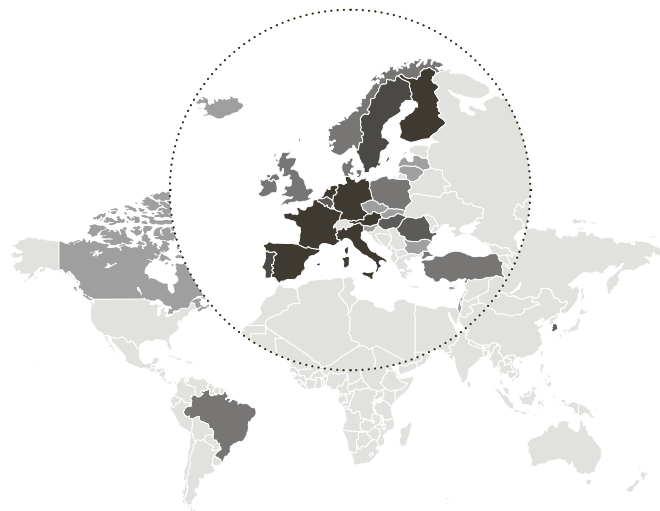
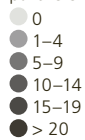
Other (10)

**56 SMEs, 11 large companies, 8 end-user organisations and 15 start-ups** from Switzerland were involved in the approved international projects.



The **cooperation partners** in international projects for 2020 came from 30 countries.

Number of cooperation partners



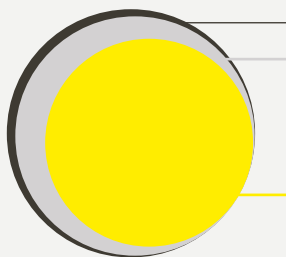
*Within approved international innovation projects, the proportion of women is 32% among the main research partners and 23% among the main implementation partners.*

CHF 7.5 million of funding contributions approved

## Innovation cheques



Funding applications  
**2020**



709 applications submitted  
659 applications assessed

**497**  
applications approved  
(Approval rate 75%)

**2019**

559 applications submitted  
513 applications assessed  
400 applications approved

**2018**

472 applications submitted  
396 applications assessed  
308 applications approved

*In 2020, a particularly large number of SMEs or other organisations applied for an innovation cheque for research services of a maximum of CHF 15,000.*

## Facts and figures

CHF 7.5 million of funding contributions approved

### BRIDGE projects

Total funding contributions awarded by the Swiss National Science Foundation and Innosuisse: CHF 14.9 million



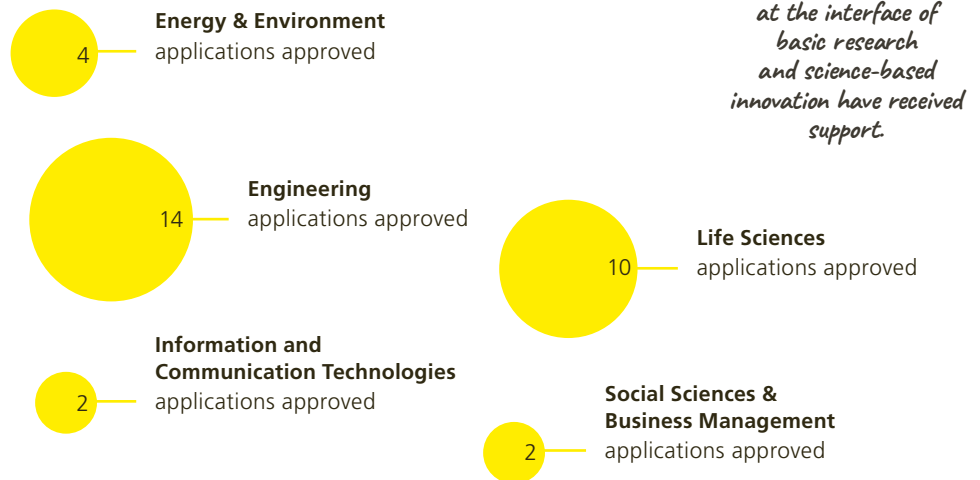
# 32

projects were supported  
in 2020 via BRIDGE'S  
"Proof of Concept"  
offering.  
(Approval rate 22%)

**2019**  
30 applications approved

**2018**  
29 applications approved

In 2020, the highest number of applications was approved in the **thematic areas** of engineering and life science.



*Since the start of the SNFS and Innosuisse programme (2018), 122 projects by young researchers at the interface of basic research and science-based innovation have received support.*

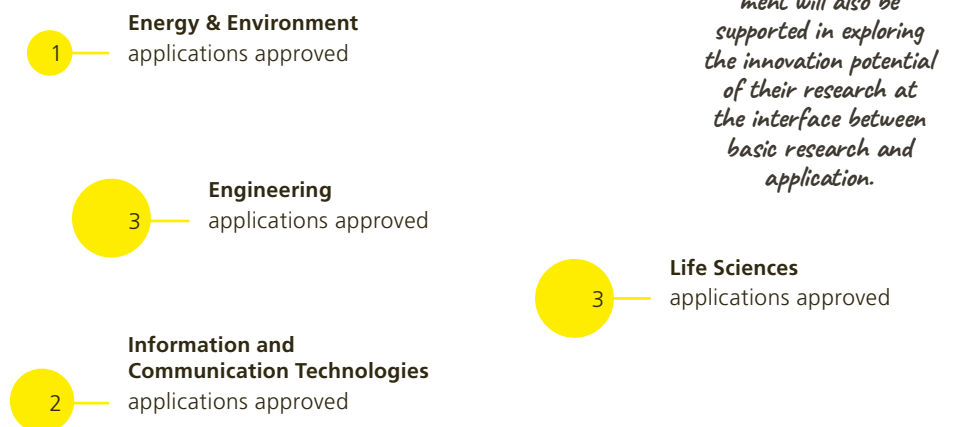
# 9

project applications for  
"BRIDGE Discovery"  
were approved.  
(Approval rate 11%)

**2019**  
10 applications approved

**2018**  
12 applications approved

Approved projects were distributed among the four **thematic areas**.



*From 2021, experienced researchers from the elds of social sciences and business management will also be supported in exploring the innovation potential of their research at the interface between basic research and application.*

CHF 31.5 million of funding contributions approved

## Swiss Competence Centers for Energy Research



### Funding distribution in 2020

*1,319 researchers at  
23 research institutions  
were involved in  
the Energy funding  
programme in 2020.*

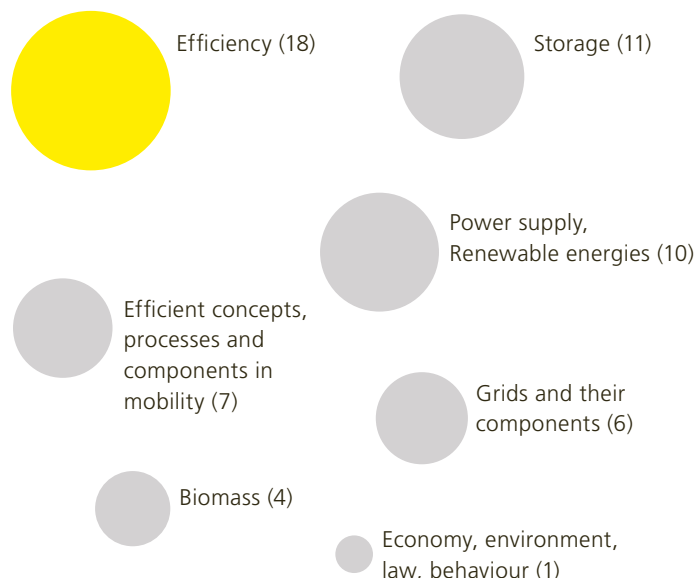
CHF 2.8 million FEED&D	CHF 4.2 million CREST
CHF 1.4 million EIP	CHF 4.5 million Mobility
CHF 5.3 million FURIES	CHF 2.8 million BIOSWEET
CHF 4.2 million HaE	CHF 1.8 million Joint Activities
CHF 4.5million SoE	

**42%**  
**third-party funding**  
is generated by SCCER 2020  
from competitive federal funding  
and industry.

**57**

**innovation projects**  
were approved in 2020  
under the Energy  
funding programme.

Most of the projects came from  
the Efficiency **field of action**.



*The energy funding  
programme was success-  
fully completed at the  
end of 2020 after a  
period of eight years.  
The SCCERs have  
launched over 1,400  
projects during eight  
years.*



## Facts and figures

### ► Networking and knowledge transfer

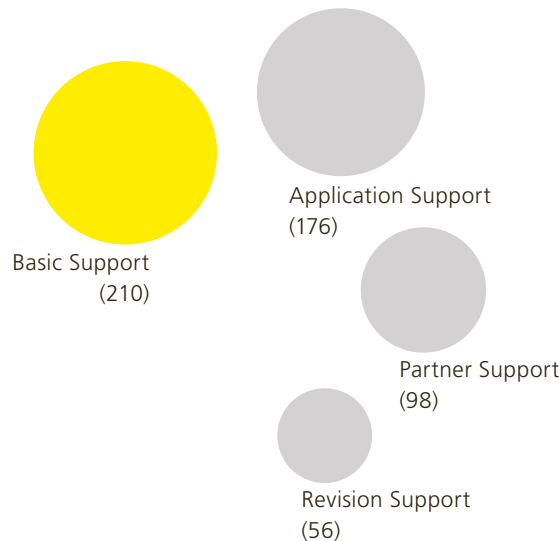
#### CHF 2.1 million of funding contributions approved **Innovation mentoring**



**399**

**SMEs** received one or more vouchers for mentoring services.

**Basic Support** was the most requested



*The mentoring option consists of four support services which continued virtually from March 2020.*

**208**

**submissions of innovation projects and other funding submissions** were accompanied by mentors.

#### CHF 0.9 million of funding contributions approved **EEN: Enterprise Europe Networks**



Around

**200**

**Swiss SMEs** took part in 43 co-organised events worldwide (mostly online) and in around 700 bilateral meetings with potential foreign technology or innovation.

Around

**350**

**contacts** with international project partners were established.

*In 2020, advisory meetings and the provision of international contacts by the 7 EEN advisors in Switzerland were in great demand.*

**28**

**companies** were supported in their search for international coaches – within the framework of the Horizon 2020 SME programme.

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CHF 21.3 million of funding contributions approved

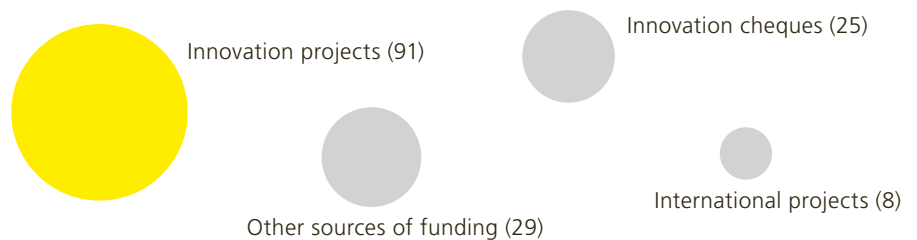
## National thematic networks

Approved funds for the 2021–2024 funding period



In 2021, the **NTN Innovation Boosters** will launch. Innosuisse has approved 12 NTN Innovation Boosters and funding of CHF 21.3 million for the period 2021–2024.

For the national thematic networks 2020 was a final year. The 10 NTN initiated **153 innovation projects**.  
(in the period 01/10/2019–30/09/2020)



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CHF 4.4 million of funding contributions approved

## Thematic specialist events

Approved funds for the 2021–2024 funding period



Networking between business and science will be promoted from 2021 with the newly aligned “**Networking Event Series**” instrument. CHF 3.1 million has been approved for this purpose for the period between 2021–2024.

In 2020, Innosuisse supported

**40**  
**specialist events**  
on innovation themes.

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CHF 0.9 million of funding contributions approved

## Partnerships and events



Innosuisse entered into

**25**

**partnerships** in 2020 in order to present its promotional offering, for example at events or in communication media.

*Three events were cancelled and we were held virtually due to the coronavirus pandemic.*

CHF 3.4 million of funding contributions approved

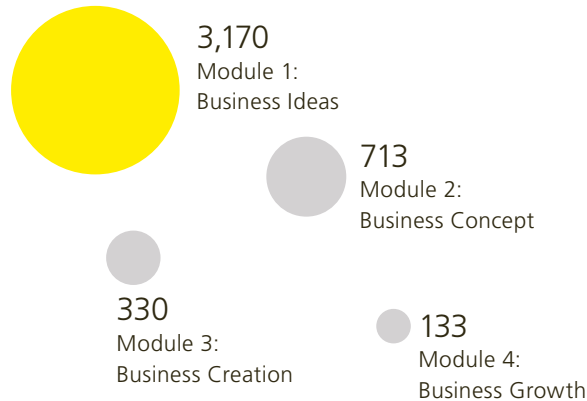
### Start-up Trainings



**4,346**

**training participants**  
attended one of the four  
modules.

The proportion of women among  
**training participants** was 43 per cent.



*In 2020, Innosuisse  
funded 85 training  
courses for people  
interested in founding  
a company and  
start-ups.*

*All training offered by  
regional consortia was  
virtual from the March  
lockdown onwards.*

CHF 5.6 million of funding contributions approved

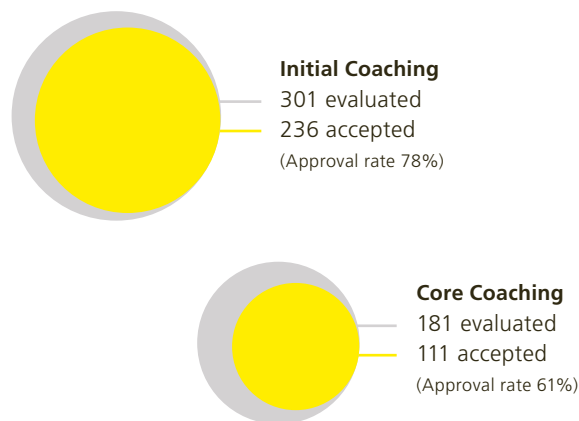
### Start-up coaching



**482**

**start-ups** applied  
for one of the three  
coaching programmes  
at Innosuisse in 2020  
and 347 were accepted.

Once again, the demand for **coaching**  
in 2020 exceeded the already very high  
popularity of the previous year.



*There was no call for  
proposals for scale-up  
coaching in 2020.  
11 of the start-ups  
accepted in 2019 began  
scale-up coaching.*

*7 start-ups received the  
Innosuisse Certificate  
at the end of  
the Core Coaching  
confirming they are  
"ready for sustainable  
growth".*

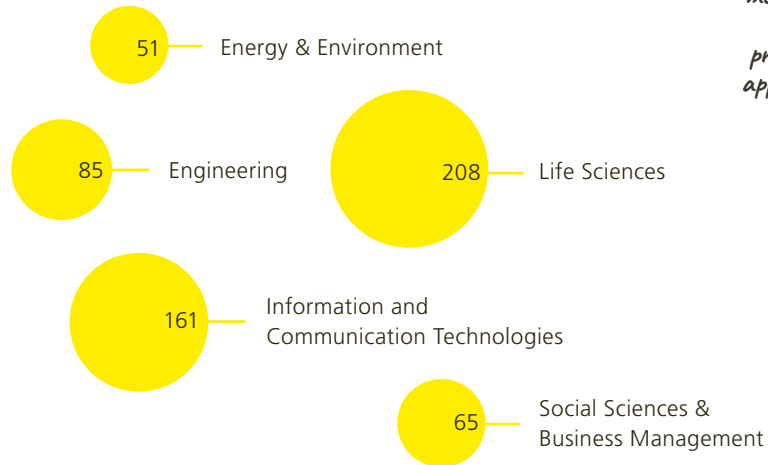
**2019**  
477 applications  
355 accepted

**2018**  
341 applications  
212 accepted

# 570

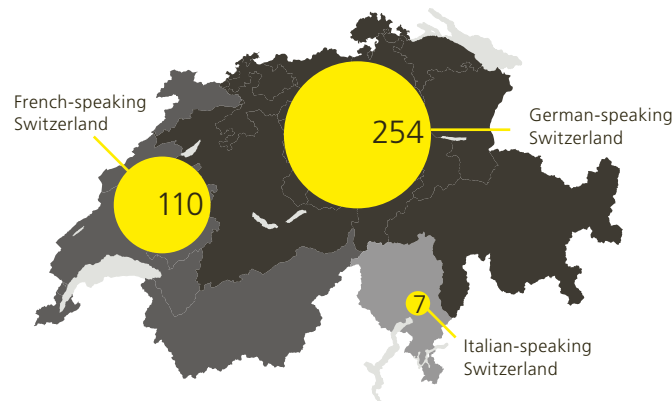
**start-ups** were enrolled in the coaching programme at the end of 2020. This represents growth of 87 per cent compared to the previous year.

Start-ups from the **innovation subject area** of life sciences benefited most from the coaching programme.



*From March 2020, start-up coaching switched over to telephone and video meetings. Extensions of the coaching programme could be applied for unbureaucratically.*

The start-ups accepted in the **Core Coaching programme** are spread all over Switzerland.



*There was an 18% proportion of women in the management team of the coached start-ups.*

The canton of Zurich has the most **start-ups**.

AG ..... (10)	GR ..... (0)	SZ ..... (4)
AI ..... (0)	JU ..... (0)	TG ..... (1)
AR ..... (2)	LU ..... (11)	TI ..... (7)
BE ..... (29)	NE ..... (6)	UR ..... (1)
BL ..... (9)	NW ..... (0)	VD ..... (75)
BS ..... (22)	OW ..... (0)	VS ..... (5)
FR ..... (3)	SG ..... (4)	ZG ..... (9)
GE ..... (21)	SH ..... (0)	ZH ..... (146)
GL ..... (0)	SO ..... (6)	



CHF 0.7 million of funding contributions approved

### Internationalisation camps



# 69

**start-ups** from the coaching programme were accepted for an internationalisation camp in 2020.

The biggest interest in 2020 was in the **camps** in the USA and India.



*Innosuisse will continue to accept applications for internationalisation camps from March 2020 onwards, but related international travel has been suspended until further notice. The scheduled camps took place virtually.*

CHF 0.5 million of funding contributions approved

### International trade fairs



# 54

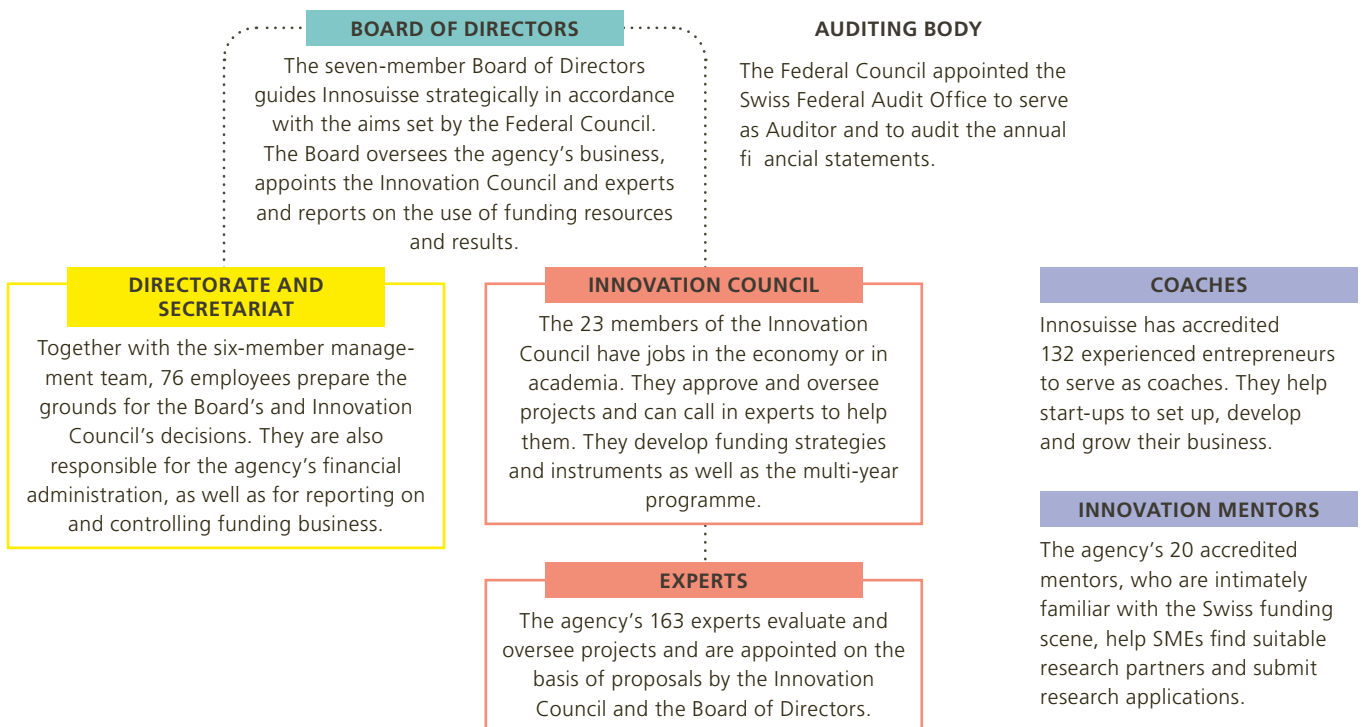
**start-ups** were able to present themselves at international trade fairs in 2020 thanks to Innosuisse.

*Participation in international trade fairs has been temporarily suspended as of March 2020. Some of the trade fairs took place virtually in the autumn.*

All figures stated in this report have been individually rounded.

# Over 400 people work on the promotion of innovation at Innosuisse

### Innosuisse's governing bodies and their tasks



Composition at 31 December 2020

# Organisational structure

## BOARD OF DIRECTORS

### Chairman

André Kudelski  
Chairman and CEO, Kudelski SA,  
Cheseaux-sur-Lausanne

### Vice-Chairwoman

Luciana Vaccaro  
Rector University of Applied Sciences  
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Member of the Audit and Compliance  
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## INNOVATION COUNCIL

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### Vice-Chairman

Alois Zwinggi, World Economic Forum

### Members

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Novartis Venture Fund

Jean-Luc Bazin, Swatch Group

David Brown, Angel Investor

Nicoletta Casanova, FEMTOprint SA

Christophe Copéret, ETH Zurich

Bettina Ernst, Proponent Biotech GmbH

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Clemens Dransfeld, TU Delft

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Organisation for Nuclear Research

Renat Heuberger, South Pole Group

Emanuela Keller, Universitätsspital Zurich

Sophie Kornowski-Bonnet, Waypoint  
Capital/Gurnet Point Capital (until  
mid-July 2019)

Massimo Lucchina, Samsung Electronics

Adriano Nasciuti, University of Applied  
Sciences and Arts of Southern  
Switzerland (SUPSI)

Thomas Puschmann, Swiss FinTech  
Innovation Lab

Philippe Renaud, EPFL Lausanne

Kelly Richdale, ID Quantique SA

Christoph Rüttimann, Bystronic Group

Leila Schwery-Bou-Diab, Cilag GmbH  
International

Stelio Tzonis, digital-strategy

Anja Wyden Guelpa, civicLab Ltd

## EXPERTS

See [www.innosuisse.ch/experts](http://www.innosuisse.ch/experts)

## DIRECTORATE

### CEO

Annalise Eggimann

### Members

Tom Russi  
Head Project and Programme Funding  
department

Barbla Plattner  
Head of the Talent and Organisational  
Development Division

Dominique Gruhl-Bégin  
Head Start-Ups and Next-Generation  
Innovators department

Marc Pauchard  
Head Knowledge Transfer and  
International Cooperation department

Gérald Walti  
Head of the Finance and Organisation  
Division

## COACHES AND MENTORS

See  
[www.innosuisse.ch/coaches](http://www.innosuisse.ch/coaches)



See  
[www.innosuisse.ch/mentors](http://www.innosuisse.ch/mentors)



## Frequently used abbreviations

EEN	Enterprise Europe Network
Empa	Eidgenössische Materialprüfungs- und Forschungsanstalt
EPFL	École polytechnique fédérale de Lausanne
ERA	European Research Area
ETH	Eidgenössische Technische Hochschule
NTN	National Thematic Network
SCCER	Swiss Competence Centers for Energy Research
SME	Small and medium-sized enterprise
SNSF	Swiss National Science Foundation

## Full names of the SCCER

FEEB&D – Future Energy Efficient Buildings & Districts  
EIP – Efficiency of industrial processes  
FURIES – Future Swiss Electrical Infrastructure  
HaE – Heat Electricity Storage  
SoE – Supply of Electricity  
CREST – Competence Center for Research in Energy, Society and Transition  
Mobility – Efficient Technologies and Systems for Mobility  
BIOSWEET – Biomass for Swiss Energy Future

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