

#### **Contents**

- 2 Editorial
- 4 News
- 6 Interviews: >>venture>> Fights COVID-19
- 20 The Winners 2020
- 34 >>venture>> 2020 in Numbers
- 40 Media
- 42 Success Story: Planted
- 52 Advisory Board
- 54 Mentors and Jurors
- 56 The >>venture>> foundation



Annual Report 2020

#### **Editorial**

#### Dear Reader,

It has undoubtedly been a difficult year. Yet besides the challenges, the pandemic has also shown how humanity is capable of dealing with seemingly intractable problems. And in the midst of it all: two startups. The vaccines produced by Moderna (founded in 2010) and BioNTech (2008) were the first to be approved in the Western world, and they are playing a key role in combating the virus.

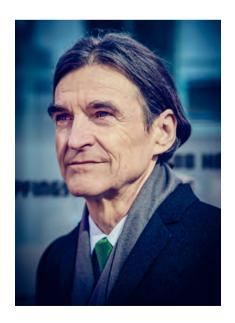
>>venture>> companies have also been actively involved in tackling the crisis: Molecular Partners is working on a COVID-19 drug that is due for rollout at the end of the year; HeiQ has supplied over a billion products with antiviral protection; SOPHiA GENETICS is helping with early detection of new variants of the virus ... Interviews with these companies start on page 6.

The only way out of the crisis is through innovation. In a bid to address another challenge facing humanity, climate change, Planted is producing plant-based meat. Read our profile on page 42.

Startups can create societal value through their products. And that's not the whole story. A study conducted by the University of Lausanne and the news portal Startupticker.ch concludes that new companies in Switzerland employ around 50,000 people—comparable to the workforce of the country's entire pharmaceutical industry. Moreover, job growth in startups stands at 3.7 percent, three times higher than the average across the Swiss labor market.

We estimate that >>venture>> companies have created way above 10,000 jobs since our foundation in 1997. And I'm particularly thrilled to note that the COVID-19 year has seen a real explosion in participant numbers—with 31 percent more teams taking part in 2020 as compared with the previous year.

Our current assumption is that we will be able to hold our award ceremony at ETH Zurich on September 13, 2021. If all goes to plan, I will be delighted at long last to once again be in a position to welcome you in person.



Thomas Knecht, founder of >>venture>>

# 2021



#### HEIQ'S INNOVATIVE PATH TO THE STOCK EXCHANGE

On December 7, 2020, the winner of >>venture>> 2006 premiered on the London Stock Exchange with a stock package worth GBP 60 million. The Schlieren-based company specializing in textile innovation went public by means of a reverse takeover, meaning it took over an already listed SPAC, or special purpose acquisition company. According to HeiQ, this path saved the company a third of the time needed for a conventional IPO as well as 20 to 50 percent of the cost. Among the many technologies at its disposal, HeiQ, a spin-off of ETH Zurich, developed an antiviral textile treatment that offers protection from SARS-CoV-2 transmission and can be used for face masks. HeiQ launched at a share price of GBP 1.12—the company is now trading at 1.39 (9 July 2021). Interview on p. 16.

#### BIOOm

#### BILL GATES INVESTS IN >>VENTURE>> ALUMNUS

Bloom Biorenewables, a >>venture>> winner from 2019, brought a prominent investor on board in 2020:
Bill Gates participated in the seed round, resulting in EUR 3.9 million, with his investment company Breakthrough Energy Ventures-Europe (BEV-E). Bloom is a spin-off of EPFL and develops innovative biomass fractionation technologies.



#### >>VENTURE>> GOES ZOOM

The last >>venture>> award ceremony took place virtually on June 22, 2020. The event was hosted online and was a major success: more than 10'000 viewers watched the one-hour event, among them the majority of the Advisory Board.



#### >>VENTURE>> WELCOMES NEW PROMINENT MEMBERS

We are delighted onto welcome Doris Leuthard onto the foundation board starting in summer 2021. For many years, the former Swiss Federal Councilor has lent her support to our competition: for example, giving the keynote as president of the Swiss Confederation at the >>venture>> award ceremony in 2010. >>venture>> would also like to extend a warm welcome to the new members of the advisory board: Philipp Rickenbacher from Julius Bär, Jürgen Eckhardt from Bayer Leaps, Carlo Centonze from HeiQ, and Walter Vogel from Skyguide who joined this year. An equally warm welcome goes to Patrick Amstutz from Molecular Partners and Arnd Kaldowski from Sonova who are back on the advisory board after taking some time away.

INTERVIEWS Simon Brunner

# >>VENTURE>> FIGHTS COVID-19



**SOPHIA GENETICS** >>venture>> winner 2012 page 7 The company for data-driven medicine sequences and monitors the spread of SARS-CoV-2.

Molecular Partners >>venture>> winner 2004 page 11
The biotech company is developing a
COVID-19 drug.



**HeiQ** >>venture>> winner 2006 page 15

The company for textile innovation has reactivated a

The company for textile innovation has reactivated a virus blocker from the Ebola era and successfully treated over a billion products with it.

#### **SOPHIA GENETICS**

# What doesn't kill you makes you stronger!"

As a leader in data-driven medicine, SOPHiA GENETICS applied its expertise to the sequencing of the SARS-CoV-2 genome to detect mutations at an early stage and monitor the virus's evolution on a global scale. Cofounder and CEO Jurgi Camblong comments on an extraordinary year in which his company has fought the virus and secured a US\$110 million round of funding along the way.

#### How have you been since January 2020? How has your company fared?

It's been a strange year for everyone, but we were lucky enough to get out of it relatively unscathed, as a company. Our core area of expertise made it quite easy to adapt to remote working and we managed not only to survive but to achieve important results and reach some new milestones.

SOPHiA GENETICS sequences the COVID-19 virus to track mutations. When did you decide to focus on SARS-CoV-2 and why? In March last year, we responded by reallocating resources to the fight against infectious diseases, and specifically COVID-19. We used our expertise and technological capabilities to develop a solution based on next-generation sequencing to follow the evolution of the virus over time at the genomic level. The idea behind this was mainly to support the global epidemiology efforts and to work with our pharmaceutical industry partners to accelerate the development of vaccine candidates and antiviral therapeutic approaches.

In August 2020, we went further with the addition of data analytics capabilities in medical imaging (using CT scans and lung segmentation to quantify disease), allowing us a better understanding of how disease progresses.

#### What successes have there been?

Like any virus, SARS-CoV-2 evolves and adapts constantly. We knew it would be important to sequence and monitor its genome to identify new strains and support informed health policies. Our cloud-based SOPHiA DDM Platform has received a lot of attention over the past few months for its COVID-19 surveillance. With over 6.000 samples per month now in eight countries, we are able to see how the virus evolves in genomic terms as well as geographically and over time. We have seen an increase in the frequency of such mutations, indicating that an early spread of these mutations is already happening. SOPHiA DDM is now a unique asset to support the real-time global surveillance of COVID-19.

### In October 2020, you successfully secured an oversubscribed US\$110 million Series F funding round. Was that easier or harder than it would have been during "normal" times?

This funding round was certainly different because of the virtual nature of the interactions. I guess our advantage was that we were already well known in the investment community, where we have a solid and consistent track record. In addition, given that this was not our first time raising capital, we were pretty well equipped and

organized to manage the operational aspect of the transactions.

#### Generally, from your point of view, what is the impact of the pandemic on the Swiss startup universe?

When it first hit, the pandemic took its toll on most companies, and for fledgling startups it was hard. I hope and believe that these setbacks will not have any impact over the long term. Business and investment opportunities were probably a bit scarcer than usual, but if a company can make it through a pandemic, it can rest assured that it can make it through anything. What doesn't kill you makes you stronger!

#### Jurgi Camblong (43)

is cofounder and CEO of SOPHIA GENETICS. a leader in data-driven medicine and listed among the fifty smartest companies by the MIT Technology Review. Jurgi Camblong is a molecular biologist with a PhD in life sciences from the University of Geneva and an EMBA in technology management from EPFL/ HEC Lausanne. He has been a member of the Swiss Federal Government's advisory council on digital transformation and was recognized by EY as **Emergent Entrepreneur** of the Year 2017. >>venture>> winner 2012







#### **Molecular Partners**

# "A quantum leap, for our industry"

Molecular Partners is developing a COVID-19 drug that might soon be market-ready, despite its being a company with "almost no experience in virology," as cofounder, CEO, and member of the >>venture>> advisory board Patrick Amstutz put it.

#### How have things been for you since January 2020?

Things have definitely been pretty lively for us since the start of last year. You might say that we've had three waves of our very own—both within the organization and in terms of the share price. We started last year on a high, fully expecting to be getting our first product, abicipar, an eye drug, onto the market in 2021 at the latest and thus giving rise to regular sales. This is a key milestone for every biotech company, and it generated positive expectations both on the financial market and for us as a company. You could call this the first

positive "wave." We also successfully launched our COVID-19 program, which brought us even more into the spotlight. But the first positive wave ended abruptly, firstly with the sharp market correction at the end of March 2020 and then when the FDA unexpectedly refused to approve abicipar. Our share price plummeted, and confidence crumbled all round.

#### But good news was just around the corner?

Yes. Our second—positive—wave began in July when we secured some illustrious new US investors, and the Swiss Federal Office of Public Health (BAG) decided to support our COVID-19 program. Then came the publishing of the first pre-clinical results for our COVID drug ensovibep, as well as the announcement of the partnership with Novartis ...

#### The pharma giant from Basel now owns a 6% share in Molecular Partners ...

Exactly. At Novartis, we're working side by side with highly professional teams, and we're all learning from one another.

Novartis and, in particular, the CEO, Vas Narasimhan, and COO for Global Health, Lutz Hegemann, are extremely well networked and can open international doors for us. Through the COVID program and the partnership-related revenues it has generated so far—for example, from Novartis or the BAG—we have been able to significantly strengthen our balance sheet and cash position. And we have established virology as a completely new field, an additional pillar, for our company.

#### And the third wave?

This is happening now, and of course we hope that it will also be a positive one. The Phase 1 trials for ensovibep went well in the UK and have demonstrated that the drug is safe. Phase 2 started punctually in the Netherlands and the first of the two large-scale pivotal trials, EMPATHY, involving several thousand patients, has started in May 2021, and the other large trial is also expected for June. This positive momentum has led us to consider a complementary listing on the Nasdaq in addition to our listing in Switzerland. So, there are more exciting weeks ahead.

#### Molecular Partners decided back in March 2020 to push ahead with developing a drug against COVID-19. How did this decision come about?

In March 2020, my team and I were at a biotech conference in Boston when COVID-19 suddenly became a very palpable reality, both in the industry and in the wider world. It coincided precisely with a superspreader event hitting the headlines—in Boston of all places. We were seeing images from Italy of dead bodies being taken away in trucks. We were all deeply shaken and started thinking about whether we could perhaps use the versatility of our DARPin® platform in the global fight against COVID-19.

#### And?

It was our current COVID project manager, Marcel Walser, team manager on the research side, who really pushed the idea consistently and relentlessly. It didn't take long before we all wanted to demonstrate that DARPin® drugs could be a key component on the road to victory over the virus. Bill Lee, a former member of the board of directors, also played a key role as head of research at Gilead, a leading virology company. Bill was also encouraging us to start a COVID-19 program. After that, Marcel sent out an internal mail to all company employees asking if they would back his new project. The response he received was overwhelming and very positive.

What's the best-case scenario for your COVID-19 program?

The best case is, of course, that we all "beat" COVID-19 together. And the "best of all possible cases" would be if Molecular Partners and Novartis had made a major contribution to the fight. If everything continues to develop according to plan, we have good a chance of getting emergency approval for ensovibep. If that happens, the drug could be available by the end of fall—in an area where, just over a year ago, we had nothing.

#### Why does the world need ensovibep now that we have a vaccine?

To date, ensovibep maintains full activity against all known virus variants. This is not the case for several monoclonal antibodies. And it's also not clear yet how well the vaccines protect people against such expected mutations of the virus. So ensovibep can also be characterized as an insurance policy against future mutations. MP0423—our second COVID-19 drug—represents another insurance policy against potential new mutations that are unknown today, and against which ensovibep may be less effective. MP0423 works in a slightly different way. It attacks the spike protein of the virus in two more places, effectively blocking another two of its escape routes. It could also make a lot of sense to mix ensovibep and MP0423 into a cocktail that combines the advantages of both drugs. This is an approach, for example, used by antibody-based companies such as Regeneron. But first we have to demonstrate the safety of MP0423 in a Phase 1 trial.

#### If MP is able to get the drug ready for market, what will that mean for the future of the company?

It would be an overwhelming success for the company and for our entire DARPin® technology platform: it would translate into a high level of international credibility and visibility and boost the value of our entire platform. After all, it would mean that we had developed an effective COVID drug in just over a year. And it would be nice to also see market success for ensovibep. That would benefit both Molecular Partners and our shareholders. Because over and above the sales of ensovibep, or rather its licensing revenues, we would also get CHF 150 million as soon as Novartis decides to execute its option to inlicense ensovibep. This payment is not linked to whether another drug outperforms ensovibep on the market.

#### And if it doesn't happen?

If something goes fundamentally wrong during development and ensovibep is discontinued, then we can still rely on our oncology pipeline, which we have consistently maintained, as well as our solid balance sheet and strong cash position. Even without the revenues from our COVID-19 program, we are very comfortably financed for two more years, and we have other valuable programs.

#### Have you had to put the development of other drugs on hold?

The focus last year was, of course, most definitely on developing our COVID-19 drugs as rapidly as possible—because results

here are desperately needed, for all of us. But the teams in oncology have continued according to plan. Only recently, in April 2021, at the renowned AACR conference in the US, we presented four posters on our innovative new programs in this field of immuno-oncology. For the Phase 1a immune-oncology trial, which we are working on with our partner Amgen, it was also possible to recruit patients pretty much to plan. The few delays they did experience stemmed from the fact that hospitals and their resources were so heavily burdened and, in some cases, overloaded by the pandemic.

#### What's the difference between developing a COVID-19 drug and "normal" development?

If I said "faster progress," that would actually be a bit of an understatement. Within a year, we had moved from the initial idea to the clinic and have already stepped into the first pivotal trial. A timeline like this was previously unthinkable in our industry. It's a source of great pride for us, particularly as a company that had almost no experience in virology.

#### And how has the industry developed in general?

It has rediscovered the concept of "co-opetition." In certain areas, pure competition has given way to cooperation. Examples here are new consortia such as ACTIV in the US and Agile in the UK with their standardized protocols and pool of recruited patients. It's a quantum leap for our sector.

Negotiations and cooperation contracts have also been finalized significantly faster than in the past—so, too, in our case with Novartis, where we wrapped things up in a matter of weeks. The same can be said of collaborations with external partners like universities or other research institutions and labs—in our case, Labor Spiez and universities in Utrecht, Berlin, and Lausanne. The sector worked extremely efficiently under a great deal of pressure and in many cases 24/7. Here, processes that would normally be sequential have been run in parallel. This makes things go a lot faster, but it also significantly increases the financial risk. The regulatory authorities also felt the pressure and maxed out their time frames without compromising patient safety. So we were under a lot more scrutiny, not only from our partners and the authorities but also from other stakeholders such as the media and investors, and we did our best to be transparent and make ourselves available to them at all times.

# "A timeline like this was previously unthinkable."

Patrick Amstutz, cofounder and CEO, Molecular Partners



HeiQ

# "No one could benefit from coronavirus"

The company for textile innovation has reactivated a virus blocker from the Ebola era. "And the rest is history," says cofounder, CEO, and member of the >>venture>> advisory board Carlo Centonze.

#### What has been your experience of the period since January 2020?

It has been a transformative and momentous time for HeiQ, characterized by fast growth. January 2020 was the start of an extremely eventful year at HeiQ. I looked on in disbelief at what was happening in Wuhan and realized that the world was about to face a pandemic. This prompted me to pull out a tried and tested antiviral technology, HeiQ Viroblock, which had been launched during the Ebola epidemic in 2013 and had proved effective on surgical masks and medical gowns and gloves—this is right in line with our company motto and our dedication to improving the lives of billions of people through pioneering textiles and

materials innovation. We were ready to deploy this technology right after the Swiss government announced a state of emergency in March 2020. And, as the saying goes, the rest is history.

#### Sure, but please do tell us a bit more about what happened next.

HeiQ Viroblock NPJ03 went into large-scale production within six weeks, and we started supplying the first antiviral masks to Swiss hospitals. The global demand then simply exploded. Thanks to an agile team, we mobilized a global task force and worked relentlessly to serve this urgent need. We were deploying resources to prepare our IPO for the London Stock Exchange Main Market, while at the same time making sure

not to neglect our other textile technologies and customers. In short, you can say it's been a pretty hectic year but, fortunately for us, positively so.

#### How are things looking now?

At the end of 2020, before any jab with the COVID-19 vaccine had been administered, we had already treated over one billion face masks, gloves, and countless other textile and non-textile materials with HeiQ Viroblock... But the end of the tunnel is still not in sight, which is why we need to continue taking precautions and protecting ourselves.

#### How does the HeiQ Viroblock work, and what can it be used for?

HeiQ Viroblock is a fast-acting antiviral technology consisting of a combination of silver molecules, which destroy viruses, and vesicles, which break down the viral membrane. It is also effective against other pathogens (avian flu, H1N1) and bacteria. With people being more hygiene conscious and aware of the threat of viruses and bacteria in their surroundings, HeiO Viroblock is proving to be extremely versatile. Although it was originally conceived as a technology for textiles, it has recently been applied to paint emulsions for home paints and to coatings for printing processes such as commercial print, food, beverage, and pharma packaging.

HeiQ won the Swiss Technology Award 2020, and the IPO was a great success. How much has the company benefited from COVID-19? No one could benefit from COVID-19. Everyone is suffering, either from the disease itself or as a result of the pandemic measures in place or the slowdown in the economy and insecurity about the future. I would say HeiO is proud to have been able to help mitigate the situation. We quickly reprioritized resources to focus on producing and organizing the supply chain for pandemic-relevant products, with the goal of trying to contribute in the best way we could. We thought it would take a while for a vaccine or cure to be invented. So while the pharmaceutical industry was doing their job, we did ours and tried our best to ease the situation as much as possible by doing what we are good at. All HeiQ employees rolled up their sleeves to help, and that's how we achieved what we achieved in 2020. This strong team has impressed me, and I am sure our strength will bring us many more successful years to come.

#### What is the most important thing you've learnt from the COVID-19 crisis?

It has highlighted that innovation is in our DNA and that we must stay agile and continue to create, innovate, and anticipate, staying one step ahead of the curve at times when technologies and social needs and demands are evolving at a rapid pace. It has underlined the high value of all our partners around the world, be it research partners who keep us on our toes or brands and other collaborators demanding technological innovations that meet and exceed consumer wishes whilst being ecologically sound.

# "All our employees rolled up their sleeves to help."

Carlo Centonze, cofounder and CEO HeiQ

# >>ven 20

# ture>> NERS 20

#### Finance & Insurance

*Top 3* 



UrbanDataLab, from left: Lorenz Walthert, Patrick Schirmer, Tobias Fuchs

1. UrbanDataLab is a B2B web service offering advanced location analytics and customized business intelligence to enable smarter location-based business decisions on a global scale. Real-estate agents are UrbanDataLab's main customer segment. The company provides them with a strategic decision-making tool delivering three services: site scouting, location evaluation, and portfolio management. UrbanDataLab is an ETH Zurich spin-off founded by two architects and a statistician. One of their first clients is Lägern Wohnen, a housing cooperative with 917 apartments.

Location Zurich Affiliation ETH Zurich Mail mail@urbandatalab.net

2. Stableton's alternative investment Fintech platform is striving to become the world's leading market network for qualified and institutional investors seeking exposure to liquid alternatives, private equity, venture capital, private debt, and real assets. Their platform investors benefit from easy access, unique opportunities, performance, and measurable impact across absolute return strategies and alternative investment content from world-class investment providers. Providers of alternative investments benefit from a scalable, fully-digital, and data-driven infrastructure that enables effective and efficient lead generation and distribution.

Location Zug Affiliation Hohenheim University (D), Munich Business School (D),
International School of Management (D), Zeppelin University (D) Mail info@stableton.com

**3. Z22 Technologies** is a financial research and quantitative asset management company and a spin-off from ETH Zurich and the University of St. Gallen (HSG). Z22 Technologies specializes in applying financial machine learning to asset management. The flagship product Z22 Smart Mirror combines an AI-optimized long US equity portfolio with a low-exposure momentum strategy to long volatility spikes as a hedge against market downturns. In October (2019) Z22 made the strategy available to external investors and launched an AMC (Actively Managed Certificate) with an initial volume of USD 250k together with UBS. In the meantime, Z22 is managing well above USD 100 m and was able to generate a net performance of more than +46.3% for their clients in 2020 during one of the biggest stock market crashes since 2008.

Location Cham Affiliation University St. Gallen (HSG) Mail hello@z22.ch

#### **FINALISTS**

| Aequitec | CurioInvest | Delega | Fidectus | Mt Pelerin | SIBEX | VALK |

#### Health & Nutrition

*Top 3* 



Urodea, from left: Lukas Bereuter, Francesco Clavica, Dominik Obrist

1. Urodea's patent-pending technology is the world's first non-invasive solution for urinary retention. The hand-held device produced by the University of Bern spin-off helps generate a urine flow for emptying the bladder while avoiding contact withurine. The device is battery-powered and relatively small. It can be carried in a pocket and utilized when in the bathroom.

Having a bladder that always feels partially full, urinary tract infections, frequent visits to the bathroom at night, and a weak or intermittent urine stream are common experiences for sufferers of urinary retention. These symptoms significantly impact quality of life, causing pain, sleep disruption, embarrassment, and reduced self-esteem.

Location Bern Affiliation University of Bern Mail francesco.clavica@urodea.com

**2. Neurosoft Bioelectronics** is developing next-generation soft, implantable electrodes to interface with the nervous system. Therapeutic outcomes are limited by the mechanical properties of the clinical neural implants currently in use. Their stiff, rigid designs are ill suited to the soft, sinuous tissues with which they interface, constraining the physiological motion dynamics of the nervous system.

The EPFL spin-off addresses this issue by engineering elasticity in thin film materials to manufacture implantable electrodes that are much softer and more flexible and seamlessly interface with the nervous system.

Location Geneva Affiliation EPFL Mail contact@neurosoft-bio.com

**3. NextKidney** is promising to deliver the "first truly portable home hemodialysis device." Hemodialysis is a procedure in which a dialysis machine and a special filter known as an artificial kidney, or dialyzer, are used to clean the blood. Today, hemodialysis is performed in doctors' offices or hospitals. Kidney patients typically need to receive this treatment three times a week, with each session lasting about four hours.

NeoKidney is the first hemodialysis device that is truly portable (weighing less than 10 kg), physiological, and cost effective. It will improve quality of life and provide substantial savings to both patients and healthcare systems.

Location Lausanne Affiliation n/a Mail info@nextkidney.com

#### FINALISTS

| Emovo | HexagonFab | Limula Biotech | | MotionTech | Nemis Technologies | Rea | | Terapet |





kaiosID, from left: Mònica Arte, Raphaël Hunziker, Johan Wüthrich, Guillaume Bangala

**1. KaioSID** supports brands in achieving two goals: eliminating counterfeiting with its elegant and secure traceability solution and increasing consumer engagement and trust. How does it work? Users scan products with the kaioSID-app to authenticate their purchase. At the same time, the app generates and tracks customer responses to advertising campaigns in real time and thus increases loyalty and trust.

Location Lausanne/Renens Affiliation n/a Mail info@kaiosid.com

**2. BLP Digital** is using AI to automate document-based Enterprise Resource Planning (ERP) and accounting workflows, such as invoice control, delivery note administration, and registering orders. The company's value proposition promises a processing time that's twenty times faster, with a 70 percent reduction in administrative costs—

and with only two days required for implementation. BLP Digital AG began developing its technology in 2018 at ETH Zurich. The company was founded in 2019 by a team of ten thoroughbred entrepreneurs and pioneers of machine learning, with the bold vision of liberating human beings from repetitive, mind-numbing tasks and allowing them to focus on more meaningful creative work. Ultimately, BLP is driven by the prospect of making significant socioeconomic change for the better.

Location Zurich Affiliation ETH Zurich Mail info@blp-digital.com

**3. SO REAL Digital Twins** uses its scanning and conversion technology (patent pending) to automate the production of digital twins of 3D objects. The Bern-based startup mass-produces assets for use in games, films, and XR experiences. The resulting objects are of cinematic quality and game- or XR-ready.

Further applications include AR retail (customers can experience products in artificial reality) and industry (individual components or complete assemblies). Ultimately, SO REAL aims to make the world a smaller place by enabling global access to immersive experiences and thus accelerating the journey to global understanding.

Location Bern Affiliation n/a Mail contact@soreal.ch

#### FINALISTS

| advaisor | Agrinorm | Exnaton | Typewise | | Urbio | V-Labs | Zoundream |

# Industrials & Engineering

*Top 3* 



Oxyle, from left: Silvan Staufert, Fajer Mushtaq, Andrea Veciana

**1. Oxyle** provides a robust and efficient catalyst for the complete elimination of organic contaminants from wastewater. Oxyle's patented technology employs clean energy and sustainable materials and is easily scalable. It serves a range of customer segments, such as pharma and biotech, the chemical industry, food and beverages, R&D laboratories, hospitals, and many more.

Its nanotech solution efficiently and nonselectively destroys organic pollutants from wastewater: pesticides, insecticides, color pigments, and industrial chemicals. The ETH Zurich startup supports customers in their sustainability efforts and is motivated by the desire to make a positive socioeconomic impact.

2. Swiss Ocean Tech's solution AnchorGuardian provides safe anchoring at any time for crew and passengers by minimizing the risk of anchor dragging, providing immediate, fail-safe anchor-dragging alarms, and predicting the anchor hold. This keeps crew and passengers safe, prevents damage to vessels, and minimizes the environmental impact. With its patented, disruptive technology, AnchorGuardian provides safety for leisure boats, fishing vessels, and merchant ships alike. The startup from Bremgarten (AG) was founded by Thomas Frizlen and his five cofounders. Thomas is a keen sailor and seasoned industrial economics expert with twenty years of experience at ABB, Alstom, and other companies.

Location Bremgarten Affiliation n/a Mail thomas.frizlen@swissoceantech.com

**3. RAAAM** has developed a unique on-chip memory technology, which enables up to 50 percent higher on-chip memory density, requiring no additional process steps or cost. The patented technology has been proven in silicon with the test chips of leading semiconductor foundries. The current growth drivers of the ICT industry, such as AI and machine learning, 5G, Internet-of-Things, and automation require ever-increasing levels of on-chip memory to minimize bandwidth-limiting and power-hungry, off-chip memory accesses. But on-chip embedded memories rely on the chip having a significant surface and consume a considerable amount of power. RAAAM offers the highest-density embedded memory in standard CMOS processes.

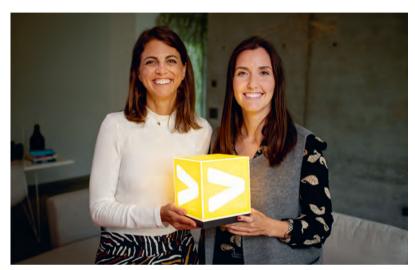
Location Ecublens Affiliation EPFL Mail info@raaam-tech.com

#### FINALISTS

| Abstract | Capskin | Gilytics | INERGIO | | matriq | Miraex | Mithras Technology |

#### Retail & Consumer

*Top 3* 



Nuniq, from left: Carmen Escano Serrano, Silvia Marquez Calvet

1. Nuniq is the only beauty brand that offers natural, personalized routines with a dramatic cut in plastics, for consumers that worry about the planet and want great results and greater hair. The two Spanish founders live in Terre Sainte, near Nyon (VD), and have backgrounds in marketing and design innovation. According to their vision: "We envision a world where there is beauty with no guilt. Our goal is to be the company that led the plastic-free movement in beauty by disrupting the industry through transparent innovation offering products that are made for you."

Location Commugny Affiliation n/a Mail hello@nuniq.io

**2. Traverz** promises to deliver the "ultimate online product search experience." Its AI-driven search engine for marketplaces and e-commerce replaces frustrating filters and search bars with an intuitive user

feedback system and a preference-ranking approach, resulting in happier users and faster conversions. The company was born in 2018 with the mission to "humanize search." Its concept was a response to frustration with the traditional filter system, which has remained largely unchanged for more than two decades. In the long term, Traverz wants to apply its paradigm to other areas that apply user-based search and discovery, from Internet research to knowledge-based applications and internal enterprise searches. Traverz was founded by two AI specialists and proven entrepreneurs.

Location Zurich Affiliation n/a Mail contact@traverz.com

**3. mia&noa** operates the world's first zero-waste, zero-contact coffee bar controlled by the customer's smartphone. How does it work? Users select and personalize their coffee with the help of an app and receive a QR Code that they then scan at a mia&noa coffee bar, where the brew is poured into their own cup. mia&noa addresses both environmental concerns and the increased demand for hygiene in a completely touch-free solution. A family business from Geneva, mia&noa is named after Switzerland's most popular first names. The company's pilot coffee bar opened last summer at a train station, and more bars are being installed in educational institutions, corporate offices, and other attractive locations.

Location Geneva Affiliation n/a Mail info@miaetnoa.ch

#### FINALISTS

| Amplify | Caulys | Flunky | PriceHunterApp | | Recyclage-express.ch | TeachNOW | | Whering |

# 2020 >>venture>> Audience Award

The Audience Award is presented together with >>venture>> media partner RTS (Swiss Radio and Television). The TV audience and general public were invited to vote for their favorite team, with the winner awarded CHF 10,000.

**Rea** has developed a smart panty liner that analyzes vaginal secretions and alerts a doctor via a mobile app if the expectant mother needs to go to the hospital. Pregnant women at risk of preterm birth can spend up to three months in the hospital, although only 30 percent of them actually deliver preterm. This solution allows pregnant women to be monitored in the comfort of their own homes, potentially sparing them months of unnecessary hospitalization and over-medication. Rea is an EPFL spin-off; its two founders have backgrounds in biotechnology and microelectronic wearables.

Location Lausanne Affiliation EPFL Mail erick@reatest.ch

OTHER FINALISTS

| Caulys | CurioInvest | | Oxyle | Zoundream |



#### >>venture>> 2020 in numbers

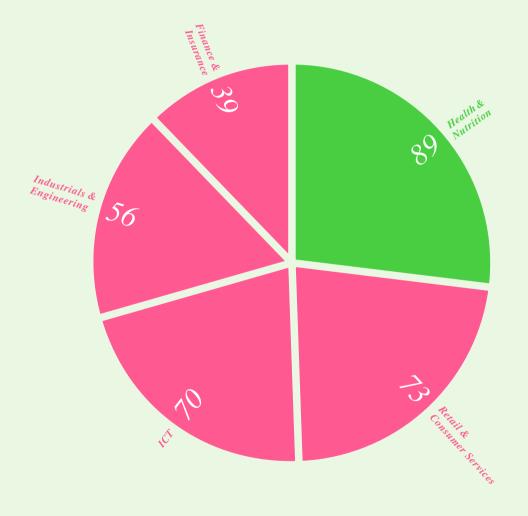
>>venture>> 2020 supported...

## ... and delivered

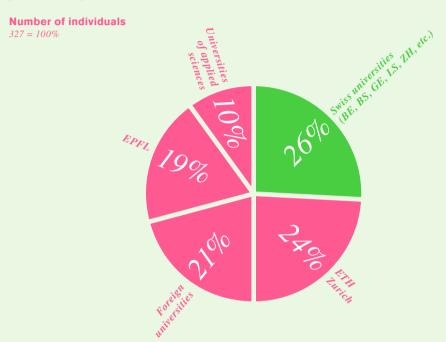
attendees

**Submissions per category** *Teams are* active in five industry verticals, with Health & Nutrition attracting most participants.

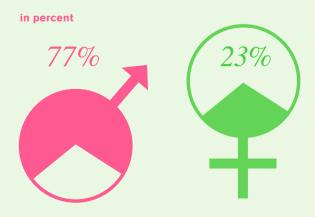
Total number of accepted submissions: 327



University affiliation ETH Zurich and EPFL account for 43 percent of >>venture>> participants.



**Gender** *Highest female participation rate in the history of >>venture>>.* 



**Geography** >>venture>> is a truly Swiss competition with participating teams from all parts of the country.

Total number of accepted submissions: 327





## **MEDIA REACH**

>>venture>> 2020 enjoyed broad coverage across the Swiss media. The competition winners and alumni were featured in the national and local media on television, radio, in print, and online. The combined media reach was over 2.05 million accumulated visits.



## WINNERS OF THE SWISS STARTUP AWARDS TAKE HOME CHF 510,000

The >>venture>> startup competition is holding its award ceremony tonight, and the grand prize winner will take home 150,000 Swiss francs. The founder of the annual contest, Thomas Knecht, shares his thoughts on what makes a successful entrepreneur and how to nurture venture capitalism in Switzerland.



# WOMEN STORM A MAN'S WORLD. THESE ARE THE INVENTORS OF THE YEAR.

Fajer Mushtaq recently won first prize in the >>venture>> awards, Switzerland's largest startup competition, with her startup Oxyle. Carmen Escano (38) and Silvia Marquez (35) also want to contribute to managing a global environmental problem with their nascent company Nuniq, which is active in plastic waste reduction.



## HIGHER EDUCATION: EVERYONE CAN BE AN ENTREPRENEUR

The Swiss Federal Institutes of Technology in Lausanne and Zurich are renowned breeding grounds for startups. But increasingly other universities in French-speaking Switzerland are also positioning themselves on the entrepreneurial front. [...] But not on equal terms "Polytechnics can develop their own technologies and bring them to market," says Léa Firmin, CEO of the Venture Foundation, Fabian Greub from the Université de Neuchâtel stresses the question of means. "The Swiss Federal Institutes of Technology have a total budget of more than 3.5 billion Swiss francs!"



## BREMGARTER MAKES THE OCEANS SAFER

Swiss Ocean Tech has won second place in the leading Swiss startup competition >>venture>> in the Industrials & Engineering category. "This is incredibly motivating," says founder Thomas Frizlen.





## CHICKEN 2.4

Planted produces meat from plants.

After the success with artificial chicken, they are tinkering with other types of meat.

Lunchtime in the Kraftwerk Restaurant on the Sihl River in Zurich. Pre-pandemic. Two young women are sitting next to one another looking at the menu. "Planted chicken?" one of them asks. "No, not for me," says the other. "I'm vegetarian."

Pascal Bieri smiles as he monitors the conversation from the next table. "We still need to get the word out," he says. Planted Chicken is the brainchild of four entrepreneurs from the ETH milieu. Their product: meat that doesn't involve any animals being killed.

This scene at the restaurant played out in the fall of 2019. Not only were the pandemic and the lockdown a long way in the future but Planted was just beginning to have some success. At the time, the startup was producing some 300 kilograms of plant-based meat per day in an ETH lab. Most of the work was done manually by a small team.

Today Planted has around sixty-five employees in a number of different countries, and production now takes place on a massive scale: up to 8 tons per day. Planted has evolved into a brand whose reputation extends far and wide. Its products can be found in the Swiss chains Coop and Migros and in Edeka and Spar in Germany and Austria.

The company headquarters has also grown: in summer 2020, Planted moved into spacious premises on the former Maggi site in Kemptthal. "A good deal has happened since we last met," jokes Bieri on the phone. His team of entrepreneurs includes his cousin Lukas Böni and Eric Stirnemann, both of whom are food engineers at ETH, as well as Christoph Jenny. Bieri himself studied innovation management at the University of St. Gallen.

Judith Wemmer is a relatively new addition to the management team. Forbes recently selected her as one of the top "30 Under 30" in Switzerland, Germany, and Austria. The food scientist is head of product development at Planted. And there's plenty happening there, with the company range constantly expanding. A few months back, they launched Planted Kebab: "The kebab that's more fab." Another new line is Planted Pulled, a pork substitute made of oat and sunflower proteins. To keep up with demand, automated production has been stepped up from the manual 2019 levels.

For all the changes, much has stayed the same: all Planted products are still chemical-free. The chicken, for example, still contains just four plant-based ingredients combined in a sophisticated manufacturing process: yellow split pea protein, pea fiber, sunflower oil, and water. The result is amazing. It looks and tastes just like real chicken, and it's almost impossible to tell the two apart. It's a similar story with the other products.

Planted is banking on a trend—meat consumption which doesn't involve animal suffering—that has gained enormous traction in recent years. Investors have injected millions of dollars into startups like Mosa Meat and Beyond Meat. Planted's founders also sensed the buzz. They launched their project in 2017 and formally incorporated their company in June 2019. A few months later, at the end of October, they successfully negotiated their first round of financing, promptly reeling in 7 million francs. The backers included familiar names like veggie king Rolf Hiltl, Philippe Gaydoul, who inherited the Denner supermarket group, and philanthropist Stephan Schmidheiny. The ETH Foundation also donated money from its spinoff fund. "A lot of people put their trust in us," says Pascal Bieri. "We don't want to disappoint."

Then there are the prizes. In 2019, Planted won the >>venture>> Audience Award. On top of the 10,000-franc prize money, the competition brought prestige and a number of useful contacts. As Bieri recalls, the award was instrumental in giving the company greater visibility: "These kinds of prizes quickly turn you into a household name and increase your credibility."

Given the Covid crisis, it's also very important to have more stores selling the Planted line. Just as the company's products were starting to feature on the menus of more and more eateries across Switzerland, "the restaurant closures carved off a significant chunk of turnover," says Bieri. Luckily, they had a variety of distribution channels in place ahead of time.





There were other factors that made 2020 a challenging year. The task was to provide a sense of cohesion to a rapidly expanding team despite all the restrictions and having to work from home. This worked out well. "It's a source of great pride," says cofounder Lukas Böni. He's also proud that the whole Planted team is always working to improve its products—and constantly asking questions of itself. "It's all a work in progress," says Böni. In this respect, the company functions like a tech startup. "We quantify everything and our discussions are based entirely on the data." They carry out regular surveys on taste, texture, consistency, "bite," and a range of other aspects. "This may sound a bit abstract, but it works well for us."

The startup also has contact with conventional meat producers. "We test, cook, and keep developing," says Bieri. Unlike in the regular meat industry, where a new spicy sausage is regarded as a major innovation, quite a bit of basic research is called for here. Planted's products improve incrementally like computer programs—the versions even have numbers: the chicken is now on version 2.4, with Pulled Pork on 1.1.

When Bieri talks like this about the products, it can sound rather technocratic. The St. Gallen graduate doesn't come across as some starry-eyed idealist—though he has all the arguments for plant-based meat substitutes up his sleeve. It's obvious to him that ten billion people can't continue to be fed the way they are today. "We need new, healthier options that are more efficient and more sustainable."

But they're not out to re-educate people. "That won't work," says Bieri, who founded the Lucerne branch of the Green Liberal Party some time ago with a group of colleagues. In his opinion, the meat-free alternative needs to be good enough and cheap enough to make consumers switch of their own accord. His team is not dogmatic either. It includes people with a broad spectrum of dietary preferences: from flexitarians to vegans.

For Böni, arguing about such categories is beside the point. Planted envisages a future in which customers have a free choice of animal and vegetable proteins at a protein counter. In this scenario, it may not even be about achieving a perfect meat imitation—but simply a matter of having "tasty, nutritious textured proteins" to eat.

Looking ahead, Planted has already set itself some fairly specific medium-term goals: having entered the German and Austrian markets, the company wants to expand into other European countries, like the UK and France.

In the meantime, the Planted team on the former Maggi site wants to keep refining its products—not behind the kind of thick walls you have in a slaughterhouse but as transparently as possible. "We have nothing to hide," says Bieri. There are also plans for an on-site restaurant, where visitors will be able to taste the future of nutrition for themselves.

### PLANTED TIMELINE

### 2017

Christoph Jenny, Pascal Bieri, Lukas Böni, and Eric Stirnemann launch their project.

### 2019

Incorporation of Planted. First financial round of CHF 7 million. Winner >>venture>> Audience Award.

### 2020

Move into spacious premises on the former Maggi site in Kemptthal.

### 2021

Today, Planted products are sold at Coop and Migros (CH), Edeka and Spar (D and AUT), and at many more retailers.



## **Advisory Board 2020**

## ascom

avaloa Francisco



Basler Kantonalbank

Valentin Chapero *Fernandez* 

Pascal Kiener

Basil Heeb Suz.anne Thoma



Calvin Hariolf Grieder Kottmann



Didier Denat



Dirk Lambrecht



Dieter Bambauer



Bruno Chiomento



CLARIANT

Christian Buhl



Christoph Loos



Christian Keller



Alban Fischer



Julian Bertschinger



Christiane Leister



Frank Rehfeld



Thomas Kühne



Mauro Saladini



Frank Lehmann



Anja König



Severin Schwan SENSIRION

Felix Mayer



Jos Dijsselhof



Urs Baertschi Swissquote

Marc Bürki



Axel Lehmann

Michael Müller

## Vontobel

Zeno Staub



Matthias Reinhart



Juan Beer

## Media partners







Pascal Crittin

## **Advisory Board 2021**

ascom

Valentin Chapero lulius Bär

Philipp Rickenbacher

Pascal Kiener Basler Kantonalbank

Basil Heeb leaps 🏵

Jürgen Eckhardt

Suzanne Thoma

BUHLER

Calvin Grieder 45 Capital

Francisco Fernandez. CLARIAN

Conrad Keijzer

DATWYLER

Dirk Lambrecht

DIE POST

Roberto Cirillo

**GEBERIT** 

Christian Buhl

HEIQ 9

Carlo Centonze

Christoph Loos

1GE | 1PE

Alban Fischer

Johnson Mohnson INNOVATION

Julian Bertschinger

Christiane Leister

Thomas Rehfeld Kühne

MOLECULAR

Patrick **Amstutz** 

NAGRA KUDELSKI GROUF

Mauro Saladini Nestle

Frank Lehmann & NOVARTIS

Anja König

Frank

Roche

Severin Schwan skyguide 🗄

Walter Vogel

SENSIRION

**Felix** Mayer

Dijsselhof

Arnd Kaldowski Swiss Re

Urs Baertschi Marc Bürki

Sabine Keller-Busse

Michael Müller

W VermögensZentrum

Matthias Reinhart

ZURICH Juan Beer

Media partners

Pietro Supino

Pascal Crittin



## **Mentors and Jurors 2020**

# Godmothers and Godfathers of Success

Young entrepreneurs are full of ideas and zest for action. But few could have formed thriving companies without the guidance of more than 200 mentors and jurors, who spent countless hours supporting >>venture>> participants—for free.

 $\boldsymbol{A}$ 

Adamus, Nick Allot, Pascal Amraoui, Abdelaziz Armalé, Ruth Aschwanden, Manuel

R

Banz, Oliver Bartos, Michal Basic, Emrah Baumann, Brigitte Becker, René Beranek, Zanon Nicole Berger, Mark Berini, Gian-Luigi Binz, Kaspar Bionness, Soren Blarer, Stefan Blossfeld, Ivonne Bocchetti, Salvatore Boella, Marco Boichat, Romain Bolt, Urs Bolte, Axel Bong, Andreas Brahme, Hanna Brandenburger, Daniel Braun, Aron Brunner, Ronnie Buck, Susanne Budmiger, Pol Buhler, Peter

Bührer, Adrian Buller, Fabian C

Caritey, Julien Claesson, Ulf Colombo, Mario

D

Dahinden, Daniel
Dantone, Matthias
Diemers, Daniel
Dieudonné-Vatran,
Antoine
Diezi, Daniel
Döbelin, Lukas
Dübendorfer, Thomas
Duvanel, Thierry

 $\boldsymbol{E}$ 

Eisele, Thomas Eleveld, Rolf Enzler, Alex Ernst, Bettina

 $\boldsymbol{F}$ 

Fabbroni, Marcello Felber, Josef Ferrari, Aldo Florin, Claude Foery, Thomas Fülscher, Jan G

Gall, Ralf
Gambardella, Antonio
Garcia, Pedraza Marcos
Geiger, Stefan
Gérardin, Luc
Golliard, Thierry
Gonzalez, Melanie
Grabulovski, Dragan
Grieder, Pascal
Gruhl, Bernard
Grüning, Wolfram
Guggenbühl, Urs
Gygax, Ruedi

H

Hacklin, Aino Hamilton, Rhea Harboe-Schmidt, Peter Häring, Daniel Havran, Jiri Herrick, Scott Herzog, Andreas Hess, Stephan Hilgendorff, Thomas Hilpert, Peter Hilti. Adrian Hofer, Markus Hoffmann, Ulrich Hohaus, Bolko Hohl, Heinz Hölling, Matthias Horne, Caspar Hatz, J. Jann

I

Jaccard, Michel Jain, Nikhil Janzi, Damian John, Corinne

K

Kaiser, Verena Kalt. Adrian Kaltofen-Ehmann, Arnd Kaufmann, Pascal Keiser, Olivier Kerscher, Thomas Klocke, Biörn Knecht, Stephan Kobel, Olivier Koch, Hermann Kraak, Marian Kramer, Axel Krevsel. Matthias Kubli, Andreas Kuhlen, Francis Kuhn, Peter Kunz, Jean-Philippe Kyora, Stefan

1

Lanfear, Matt
Lang, Markus
Lattuada, Mauro
Lauchenauer, Frédéric
Lewis, Jim
Lohrer, Minja
Lonnen, Rana
Looser, Walter
Lucchina, Massimo
Lukas, Wilma
Lutz, Paulina

## M

Mähr, Christian
Massignani, Marzia
Matthews, Donat
Maurice, Alexandre
Meisser, Christian
Melo da Silva Ferreira,
Rui Manuel
Meyer, Manuel
Millard, John
Moesching, Sylvain
Mohr, Vivian
Moser, Markus
Müller, Eduard
Mutz, Cédric

Nebel. Simon

### P

Patrick, David
Petersen, Claudia
Petrichtche, Andrey
Piguet, Karim
Pitton Yves
Plötz A. Peter
Plüss, Andreas
Polydor, Sylvia
Prundaru, Ioana

## R

Reinhardt, Lukas Reitgassl, Frank Rejman, Lucie Roman, Johan Roth, Balz Roth, Simon Rubner, Dennis Ruchti, Christoph Rüedi, Marco

Sailer, Damian
Sailer, Isabelle
Scheel, Hilmar
Scheller, Gerd
Scheuring, Luca
Schiess, Ralph
Schläpfer, Alexander
Schlenker, Andreas
Schneider, Martin
Schneider, Shila

Schön, Frank Schubiger, Franz Schwarzenbach, Andy Seidel. Alex Sidler, Michael Siebenbürger Hacki, Katrin Sierra, Raimundo Spaeti, Philipp Spycher, Bernard Steiner, Ulrich Stemmler, Franziska Stender, Urs Stephan, Véronique Stöckl, Alex Stucky, Michael Stutz, Frido Suter, Christian Svoboda, Tomas

Tazi, Amine Thar, Evelyn Thévoz, Patrick Thiel, Alexander Tribalat, Fanny

*U* Ullman, Fredrik  $\overline{V}$ 

Van den Oever, Jeroen van den Toorn, Willemien van der Wolde, Aimée Van Hautekerke, Charlotte Vass, Francesco Vilhena, Sabrina Visarius, Heiko

## W

Wacker, Michael Wagner, Karen Walcott, Arijana Walser, Monika Walther, Beat Weder, Lukas Weingarten, Kurt Wibmer, Jeannette Widmer, Simon Williams, Virginia Wolf, Matthias Wolff de, Jean

Y Yu, David

Zimmermann, Claudia Zimmermann, Krissy

## The >>venture>> foundation 2020

### Foundation Board

**PRESIDENT** 

Thomas Knecht, Knecht Holding, Chairman

**VICE PRESIDENT** 

André Hoffmann, Roche, Vice chairman

**MEMBERS** 

André Kudelski, Innosuisse, President

Ulrich Jakob Looser, BLR & Partners, Partner

Joël Mesot, ETH Zurich, President

Martin Vetterli, EPFL, President

Marco Ziegler, McKinsey & Company, Senior partner

### Steering Committee

Thomas Knecht, Knecht Holding, Chairman

Silvio Bonaccio, ETH Zurich, Head of ETH transfer

André Catana, EPFL, Head of Startup unit

**Lea Firmin**, >>venture>> foundation, CEO

Dominique Gruhl-Bégin, Innosuisse, Head of startups and next-generation innovators

Ulrich Jakob Looser, BLR & Partners, Partner

Marco Ziegler, McKinsey & Company, Senior partner

### *Office* >>venture>>

**Lea Firmin**, >>venture>> foundation, CEO

Nathalie Geiger, >>venture>> foundation, Events & participant relations

**Priscilla Sarnau**, >>venture>> foundation, *Marketing & communications* 

**Maria Demontis,** >>venture>> foundation, *Marketing & events* 

**Céline Korzepa**, >>venture>> foundation, *Events & participant relations* 

Martino Corti, EPFL, Marketing & communications

Galina Beliakova, EPFL, Events & participant relations

Lukas Steiner, McKinsey & Company, Jury & awards ceremony

## **Foundation Board**



André Hoffmann Roche



Thomas Knecht
Knecht Holding



Marco Ziegler
McKinsey & Company



Ulrich Jakob Looser BLR & Partners







Joël Mesot ETH Zurich





## McKinsey & Company





Schweizerische Eidgenossenschaf Confédération suisse Confederazione Svizzera Confederaziun svizra

Swiss Confederation

Innosuisse – Swiss Innovation Agency



### **General editor**

Lea Firmin

Concept, content, and

## project management

Simon Brunner, Ammann, Brunner & Krobath AG, abk.ch

## Design concept, layout, and production

Angélique El Morabit, angelique el morabit.com

### **Photography**

Christian Grund, pp. 3, 10, 42–51, Daniel Rihs /13 Photo,

### Illustration

Georg Wagenhuber

Printing and bookbinding

druckhaus köthen GmbH&Co. KG

© 2021 >>venture>> foundation Windisch

