

Annual report 2022





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Foreword

Entrepreneurial spirit and initiative can make a difference and create a positive impact, especially in a time of socio-economic turbulence. However, entrepreneurship is a tough journey. Through our existing and new initiatives, we aim to continue developing a favourable framework for startup founders to push their innovative projects forward, build new solutions and be an architect of change. While the development of future projects at USI Startup Centre is in full swing, we invite you to look back on 2022 and learn more about what we, our community and our startups have been up to.

The USI Startup Centre team

From left to right:

Francesco Meli

Centre Management
and Coach

Samuele Morales

Incubator Coordinator

Anastasia Bedova

Community and
Communication Manager

Umberto Bondi

Senior Project Manager
and Coach

Francesco Lurati

Director of USI Startup
Centre



Who we are

We are the centre of gravity for entrepreneurial community on campus, a space where researchers, students, entrepreneurs and business people meet to bring inventions to market supported by a community of like-minded individuals.

In a nutshell

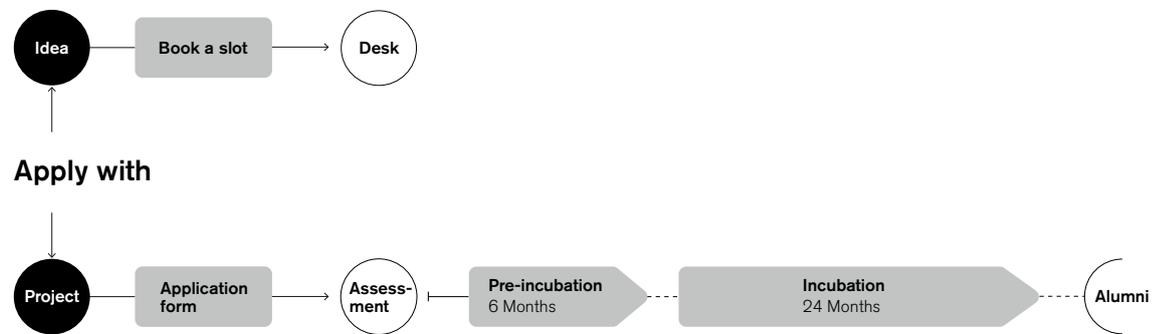
USI Startup Centre is a gateway to science-driven early-stage startups. We fuel the development of the entrepreneurial culture within the academic community and enable innovative projects with a strong scientific element to develop and create solutions that can benefit our economy and society at different levels.

Our flagship initiative is the incubation programme within which we select promising projects and help the founders to transform their inventions into innovative startups capable of attracting funding and bringing their products to market by developing viable business models. Now we also offer brief individual meetings to people who are at the initial stage of the idea development through our desk service. In addition, we continue designing and implementing events and other activities aimed at growing a diverse and supportive innovation community where entrepreneurial projects take shape.

All this is delivered by a team of passionate innovation enthusiasts with complementary backgrounds who put their experience and knowledge at the service of startup teams to support them in bringing inventions to market. Since September 2022, we are supported by a Scientific Board composed of professors representing different USI faculties and the Technology Transfer Manager that provides input on potential research collaborations and synergies with the academic community.

In addition, we count on a network of external advisors with relevant business expertise who can support startup founders within our incubation programme with industry or subject matter advice and introductions.

Incubation process



Katerina Rigana
PhD candidate
in Finance, USI
Partner & VP,
S2S Ventures

“I had some ideas in mind but no structured project yet. I wanted to understand what resources and support I could potentially receive from USI Startup Centre in my specific case and get some initial feedback on how to get started. This is why an informal conversation without having to fill long application forms was perfect for me.”

Desk

Acting on a startup idea is not always straightforward. This is why we launched a desk service, where we help aspiring entrepreneurs navigate the initial phase of the idea development.

New service in brief

While in order to be eligible for the USI Startup Centre incubation programme, the team is required to have already developed a Proof of Concept (PoC), alongside other requisites, we have a service dedicated to those who have not reached this stage of development yet. It is called "Desk" and aims to provide initial feedback to founders who are still in the ideation phase.

The individual meetings with members of the USI Startup Centre team last one hour and are easily bookable online through our website. It is an informal conversation where aspiring entrepreneurs can share their ideas, get recommendations on the next steps, ask for information or receive help in navigating the innovation ecosystem.

Since the service launch in March 2022, during the first ten months of activity, the USI Startup Centre team delivered 41 hours of consulting to 27 different users from USI as well as from outside the academic community.

Desk requests by

origin

81% USI

19% Foreign Universities

gender

22% Female

78% Male

Sepehr Beheshti,
Master student in
Artificial Intelligence,
USI

"I used the desk service to understand if my idea and the first PoC I made could be developed into a startup project and if yes, what would be the next steps. From what I read on the website, USI Startup Centre seemed to be the right place. With the feedback and advice received from the team and thanks to the Business Concept course I could move forward in developing the project."

Startup incubator

From business model definition to fundraising and setting up for growth – our structured incubation programme accompanies founders in defining a strategic roadmap and developing their early-stage startup projects into viable businesses.

Incubation process

Throughout 2022, we further refined our incubation programme structure and gradually implemented new processes presented to the community at a Town Hall meeting held in October. This evolution reflects the focus on projects with a strong scientific element originating from or strongly linked to the academic research conducted in Ticino. A focus that derives from the fact that our incubation programme is embedded within the academic environment. The current eligibility criteria also stem from this positioning and consider aspects related to the project as well as the team's motivation and commitment.

Given a change in eligibility criteria and the "Desk" service launch in 2022, we saw fewer applications to the incubation programme. From 18 new applications

received, the majority (39%) represent the "Social Science and Business Management" sector, followed by ICT (28%) and Life Science (22%). 50% of all applications originated from USI students, researchers or alumni.

The current incubation programme structure includes a pre-incubation and an incubation phase, each with a specific focus. Startup projects that successfully complete the pre-incubation may be promoted to the incubation phase, which lasts a maximum of two years. If the conditions are met, and the project is accepted into incubation, the team is invited to present it in front of the academic community and our Scientific Board during a dedicated event.

Incubator applications by

origin

50% USI

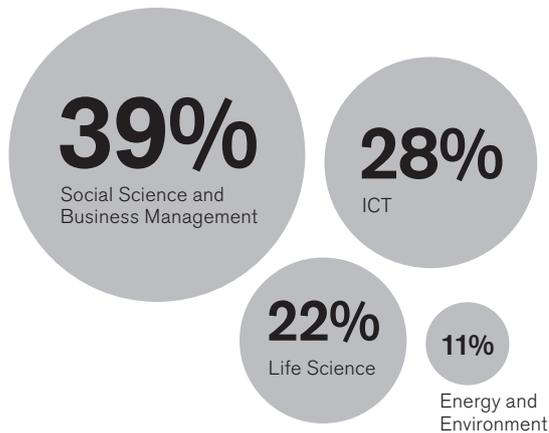
33% Foreign Universities
11% SUPSI
6% Other

gender

28% Female

72% Male

sector



Supported projects

During the course of 2022, 30 startup projects were incubated at USI Startup Centre representing five different industry sectors: "ICT" (30%), "Life Science" (27%), "Engineering" (20%), "Energy and Environment" (20%), and "Social Science and Business Management" (3%). Four of these startups were accepted into incubation in 2022, namely Arcadia, InkVivo Technologies, talent4gig and Regenera, while others were already in the programme since 2021.

Based on the information reported by founders through our annual internal survey¹, six incubated startups raised close to CHF 2M in funding from third parties in both equity and debt, while an additional CHF 430K was raised by 11 startups through personal investments by founders. Ten startups have been already generating some revenues during the reporting year, while the remaining projects are still in the pre-revenue stage. A total of CHF 196K was received by incubated startups in the form of cash prizes, grants or vouchers that can be used for coaching and/or professional services. This includes, for example, Innosuisse coaching and mentoring, Venture Kick, Boldbrain Accelerator, etc.

¹ Information is self-reported, some information regarding funding and revenues is confidential and could not be disclosed

The research collaborations between startups and academia continued to increase over 2022. Six startups received approval for seven new research projects with different universities and universities of applied sciences for a total amount of over CHF 3.1M, three of which are in the framework of Innosuisse innovation projects.

Due to the nature of these initiatives, not all the startups that enter incubation terminate the programme, some leave due to the discontinuation of the project or because of other reasons. In 2022, one project dropped the programme and therefore is not considered in the analysis.

After two years of incubation the startup projects are expected to continue running their business and growing autonomously, even if not all of them will ultimately be able to thrive. From 73 projects that ended their incubation journey prior to 2022, 36% are still active and 5% reached an exit while the remaining are either closed or are in stand-by mode.

Annual turnover	1.8M
Number of FTEs² (full-time-equivalents)	87.6³
% of FTEs that receive some kind of remuneration	65%
Number of patents	39⁴
Funding raised (including CHF 430K invested by founders)	CHF 2.4M
Cash prizes, grants, crowdfunding and other support	CHF 196K
Research and applied research projects with partners	CHF 3.1M

² FTEs refer to the number of team members, including founders, employees, interns, etc.

³ Of which 24% are women

⁴ Of which 18 filed and 21 granted

Segments
Target Customers

BLIND
PEOPLE

Occupation

Channels

Path to customers

Associations
and support
groups



In the spotlight

Research collaborations between startups and academia

USI Startup Centre and our incubation programme are embedded within an academic environment which creates a perfect framework for science-driven ventures that can not only transform inventions or academic knowledge into innovative products and solutions but also to build further research collaborations that benefit both the startup and the research partner.

Typically, startups are very R&D intense ventures and like established companies they also look to academia to join forces and work on innovative projects together. Such collaborations may accelerate product development, add credibility, be an asset during fundraising and help push forward even with limited resources. In Switzerland, joint research projects between startups and research institutions can benefit from public funding through Innosuisse innovation projects instrument.

Throughout the years, we have seen many startups benefit from this opportunity and being able to enhance their products and solutions thanks to the contribution and domain expertise of the research partners. Some of the recent examples include TellTheHotel and Heima, which were both granted Innosuisse funding. In the case of TellTheHotel, the project runs in collaboration with SUPSI and focuses on developing a custom solution to embed intelligence into their closed-domain task-oriented conversational agents designed to streamline the guest experience in the hospitality industry. While the Heima project, together with BFH Berner Fachhochschule Architektur, Holz und Bau, aims to develop modular hotel cabins with a minimised ecological footprint, which are assembled from transportable elements and designed for different climatic zones, using a circular eco-design approach.

TellTheHotel allows the hotel staff to control the Instant Messaging communication with the previous, current and potential guests through a single dashboard and automates the conversation, whenever necessary and appropriate, via state of the art AI-based chatbots.

Heima offers self-sustainable cabin-based developments in pristine locations, controlling the whole value chain, from design to management.

Combining startup and studies

“Wait till you finish your degree” or “One thing at a time” - These are comments that anybody planning to launch a startup project while studying have heard at least once.

Here is a take on the topic from Christian Altrichter, a Master student in Artificial Intelligence and founder of Aility GmbH.

Should you wait till graduation if you have a startup idea?

I am a hospitality student who decided to do a Master in Artificial Intelligence. People told me that I should not do it. But if you have an idea and you know what you want, just go for it. Other people do not have that intrinsic motivation that you as a student or an entrepreneur have. One thing is sure, you need to be very good at time management, build a team and talk about it to your partner and family as personal relationships might suffer during this time.

When did you decide to launch a startup?

It was at the beginning of my studies at USI while I was doing some debit course before starting the Master programme. I was thinking about this ideas and could not sleep so I called a friend in the middle of the night to discuss it. Then during the same week I saw the presentation of the Business Concept course by Innosuisse and applied. I worked on the idea during the course and by the end of it I had a solid document that helped assess the feasibility of the idea. When I look back, it was the perfect timing and everything just fell into place.

How do startup and studies interact?

Very closely. Based on my field of study and the solution we are building, I can select courses where I can directly apply what I learn on the startup. For example, User Experience Design, Writing Business Plans or Algorithms. Also the other way round, my first-hand experience from the startup project helps acquire a deeper understanding and bring practical knowledge to class. Usually the professors are happy to let you practice on your project.

Studying with people that have the knowledge and skills I need also makes it easy to tap into the tech talent pull. When I was choosing the university for my Master degree I did consider this aspect: where would I rather go if I ever decided to launch my own venture? So I chose USI over other options because here I can connect with people who have a tech background. And these connections and network already helped me to start building a team and push my project forward.

Transition from incubation to self-sufficiency

The startup projects that successfully complete the incubation programme move out of the USI Startup Centre premises, set their independent offices or join other programmes and continue running their business and growing autonomously. This transition is a necessary step in the company's growth so we asked two of our alumni startups to share their insights and learnings.

The early-stage startup incubators like USI Startup Centre concentrate on enabling entrepreneurs to focus on finding the product-market fit, building a team and raising first financing. It also includes providing a somewhat protected environment and basic facilities like office space, meeting rooms, other infrastructure and tools. These may seem little things that for a young startup are not so little, as our alumni startups share. According to Marco Alberti, Founder and CEO of Stagend, being able to work with the whole team from one place is often taken for granted while it is a crucial aspect that facilitates the integration of new resources and gets things moving. Once you move out in the world, it is not so easy to find an adequate space for your team members to work from without spending a fortune. Being a startup founder you might feel very lonely. Therefore, even if at the beginning it is not easy to take advice from coaches since you have your own convictions, you then realise that having the right support can make a difference. Working with coaches and advisors you trust is something you might want to continue looking for also once you are out of the incubator.

From the point of view of Francesco Cecchini Manara, Co-Founder and CEO of Gondola Medical Technologies, startups need to leverage their incubation time wisely and try to get the most out of, especially for the R&D activities and building a network of contacts that will be useful in the following stages. Preparation is key to making a successful transition to autonomous operations and development as it normally requires more time and money than entrepreneurs expect. This is why at USI Startup Centre we are integrating the topic of setting up for growth as part of the incubation journey for our startup teams to enable them to plan ahead.

Stagend.com collects and categorises a large number of live entertainers so that you can find & book the most suitable one for your event, quick and easy.

Gondola Medical Technologies developed Gondola® AMPS, a medical therapy that treats disabling movement symptoms caused by neurological disorders such as Parkinson's, stroke and peripheral neuropathy.

Community

Innovative projects are not developed in a vacuum. Through our activities we aim to grow a community of entrepreneurs and innovation enthusiasts that support each other, exchange knowledge and make things happen.

Training

The right knowledge and tools help founders navigate their startup development journey, avoid common mistakes and plan ahead. We gathered our experience from working with over 100 startups teams over the years, our team's expertise as well as the outstanding domain knowledge of our Scientific Board and our network of advisors to create a training offering tailored to the needs of early-stage entrepreneurs.

The training modules tackle key topics of building an innovative venture, from strategy to building customer relations to investor readiness and are divided in two levels to fit different stages of project development. All the training is hands-on and complementary to the coaching provided by the USI Startup Centre team and by our external advisors.

In the second half of 2022, we delivered the first four training sessions of the first level of the programme designed for startup projects in the pre-incubation phase. While the first level sessions are group meetings where members of different teams are present, the second level modules are mostly specific to each startup and tailored to their challenges and needs.

Training topics

- **My startup and me**
- **Startup Support Programmes**
- **Strategy**
- **Building customer relations**
- **Intellectual Property (IP)**
- **Financials**
- **Investment Readiness and Fundraising**
- **Pitching**
- **Setting up for growth**



Events
timeline

2022

May

05



Business Ideas Spring

24



Business Apéro: Why prototype and how to make the most out of it

September

12



Intellectual Property 101

20



Startups for Lunch

27



Meet the USI Startup Community

28



Incubation Kick-Off Pitch

October

03



USI Startup Centre Town Hall

10-13



Startup week:

- Why start a startup
- I have an idea. What's next?
- Innovation pushing the frontier of sustainability in architecture
- Things I got wrong as a startupper

November

10



Venture Briefing Lugano

24



Business Ideas Fall

Community building

Throughout 2022, we organised 13 events engaging close to 500 participants and 29 speakers and hosted a few partner meetings. Building awareness on and off campus was the focus of our community activities with almost 50% of all 2022 events dedicated to informing the audience on the topics related to innovative entrepreneurship and on the USI Startup Centre offering.

In October, we set up a lounge space on the West Campus in Lugano to host informal talks with founders from our community on different topics related to their startup journey, from why begin a startup to how to deal with setbacks. These conversations, open to students and researchers, represented an occasion to get to know the startup world from the inside and get to know real stories of different people who decided to take a leap.

As entrepreneurship continues to be a viable career path and receives more and more interest from the student population, we continue offering informal meetings at our premises to new students during their first weeks. This way they can get to know USI Startup Centre and the incubated startup projects. Over the course of their studies they might then decide to do an internship or a field project with one of the startups or start their own venture.

Furthermore, together with colleagues from SUPSI, we continue to coordinate the implementation of modules 1 and 2 of the 'Innosuisse start-up training'⁵ in Ticino as part of the consortium composed of seven educational institutions. Module 1 includes the organisation of events and the 'My First Pitch' competition, where five selected startup projects were presented to the jury whilst module 2 includes the management of the Business Concept course. The course, comprising 10 lessons, is aimed at providing specific knowledge needed to launch a startup. 27 USI and SUPSI students and researchers who attended the course in 2022 were set up in teams and worked on developing five startup projects.

We aim to further develop the connection between USI Startup Centre and the teaching activities by working together with professors responsible for courses related to entrepreneurship from hosting some of the classes at our premises and promoting the engagement of startups as case studies or testimonials when appropriate. To name a few examples, in 2022 we welcomed students of the "Entrepreneurial Finance" class taught by Prof. Laurent Frésard, hosted a mini pitch event for students from the "Social Innovation" class of Prof. Paulo Gonçalves while one of our startups provided a guest contribution within the "Digitalisation between Marketing Opportunities and Consumer Vulnerabilities" course by Dr. Ksenia Silchenko.

⁵ www.entrepreneurship-training.ch/about-us



Collaborations and partner initiatives

The innovation ecosystem keeps on growing and as USI Startup Centre we build on existing collaborations as well as support new initiatives aimed at promoting and incentivising entrepreneurship. One of the recent examples refers to the Privilège Student Ventures⁶ initiative, the first student-run startup investment (VC) fund in Lugano and Milan. The programme allows a selected group of students supported by professionals to learn how to select and evaluate startups while investing small investment tickets in student-run innovative ventures.

Our long-standing collaboration with the Boldbrain Startup Challenge⁷, the Ticino-based accelerator programme aimed at early-stage startups and innovative ideas, continued also for the 2022 edition. As usual, 20 promising innovative ventures were selected to participate in the three-month programme, which ended with an award ceremony held in Lugano where 10 finalists had a chance to pitch their project and compete for the audience award. The winner of the 5th edition was Aliper Therapeutics, a spin-off of the Institute of Oncology Research (IOR, affiliated to USI and member of Bios+) that aims to develop pharmacological treatments for prostate cancer with a drug composed of bacteria that helps standard therapies work better and delays the development of severe forms of the disease.

⁶ www.pv-student.vc

⁷ www.boldbrain.ch

⁸ www.frh-fondation.ch/en/innovation-booster

In 2022, we also had a pleasure to host one of the workshops of the Innovation Booster Technology and Special Needs⁸ programme, which bring together key stakeholders from research, business and society in Switzerland around an innovation topic and stimulate the development and testing of radically new ideas in interdisciplinary teams. The workshop held at our premises focused on people with visual disabilities and was aimed at identifying possible solutions to specific needs. The teams that propose their innovative ideas during such workshops can then receive initial funding for feasibility studies, exploratory research or prototyping within the programme framework.

We contribute to the local innovation ecosystem in the area of our expertise and collaborate with different institutional partners. In April 2022, USI Startup Centre curated a panel discussion focused on collaboration between startups and academia during the first edition of the Giornata cantonale delle startup, an event organised by the Department of Finance and Economics (DFE) in collaboration with the Agire Foundation.





List of startup projects incubated at USI Startup Centre

Energy and Environment

BeeHelpful

BeeHelpful manufactures and sells worldwide Primal-Bee Hive, a patented hive that redesigns the beekeeper's economy, saves bees and sets a new standard. Primal-Bee Hive means +200% honey and pollination capability, easy to manage and no brood disease at a competitive price.

➤ primalbee.com/beehelpful

Foodbarrio

Foodbarrio is a marketplace where producers and lovers of quality food meet to tell, sell and buy unique products. Foodbarrio's mission is to reinvent the quality food trade by creating a more sustainable food system in the interest of producers and consumers.

➤ foodbarrio.com

Finar Module Tech

FM Tech engineered a buffer structure that provides CTE MATCHING properties between different materials in power device packaging and also has excellent thermal and electrical characteristics. This provides phenomenal reliability and also allows optimal stacking architecture and simplified design and production, while still using standard economic materials.

➤ FinarModule.com

iWin

iWin operates in the field of smart building façades. Its proptech solution, photovoltaic window, offers sustainable energy and shading, controls glare and optimizes the incoming natural sunlight and solar heat gain.

➤ iwin.ch

Ticinsect

Ticinsect wants to revolutionise organic waste management by using insects to bioconvert scraps into raw materials like proteins, oil and frass from what normally is thrown away.

➤ ticinsect.ch

Engineering

Arcadia

Arcadia wants to help build a world where all waste shall be recycled in a safe and natural way. It uses non-pathogenic bacteria, to transform waste into useful products for everyone.

➤ xegate.eu/arcadia

Bafunno Music Tech

Bafunno Music Tech developed a new generation mechanics for acoustic upright pianos to obtain the technical performances of grand pianos on upright pianos through a double repetition mechanism saving money and space.

➤ bafunno.com

Clara Swiss Tech

Clara Swiss Tech designed an ultra-bright turn signal vest for cyclists and runners.

➤ claraswisstech.com

Daxtro Swiss

Daxtro Swiss developed DAXTRO-DR, a device that removes limescale, prevents its formation and improves water quality.

➤ daxtroswiss.ch

Ierom

Ierom developed F-HELIX, an optionally-piloted e-rotorcraft with propellers-driven rotor powered by liquid hydrogen fuel cell.

➤ ierom.com

IRONGLOVE Technology

IRONGLOVE Technology created MANO//TechTouch, a wireless ironing glove. MANO TechTouch is a design glove to be used in mobility or at home, wherever and whenever you like. It's rechargeable, pocket sized, easy to use.

➤ ironglovetechology.com

ICT

AIKnowU

AIKnowU is an AI-based human-to-human conversational listener that extracts topics and sentiments, and creates a knowledge base that can be used to train bots.

➤ aiknowyou.ai

Appybros

Appybros specialises in digital transformation and digital products, using UX design & custom solution development to achieve quality and build strong, flexible realities.

➤ appybros.ch

I'm Back

I'm Back is an affordable, multi-brand, digital back module for almost all analogue photo cameras. It's a non-invasive, hybrid and reversible solution that allows using the camera in an analogue or digital mode.

➤ imback.eu

LocalPoint

LocalPoint automatically transforms PDF newspapers into websites and mobile apps.

➤ localpoint.ch

Mobyzer

Mobyzer is a new retail commerce platform designed to boost shopping in local stores. Its Smart App automatically finds products shoppers want, can buy in-App and get in nearby stores in real time, anytime, anywhere.

➤ mobyzer.com

Rec 360

Rec 360's product is a portable equipment to capture 360 photos for items in ecommerce. It uses the "bait & hook" model. Good for web agencies, photographers, anybody willing to go online.

➤ rec360.ch

Sublime Technology

Sublime Technology is working on MOSTFIT project in collaboration with NWFH in Windisch (AG), using algorithms to optimise the purchase of clothing online by comparing the measurements of clothes with those of the body, which are acquired with a point cloud through the sensors that are included in the new generation phones.

➤ sublime-technology.ch

Talent4gig

Talent4gig empowers HR and technical hiring managers with data-lead insights to create world-class software engineering teams.

➤ talent4gig.com

TellTheHotel

TellTheHotel allows the hotel staff to control the Instant Messaging communication with the previous, current and potential guests through a single dashboard and automatise the conversation, whenever necessary and appropriate, via state of the art AI-based chatbots.

➤ tellthehotel.com

Life Science

BigOmics Analytics

BigOmics is a Swiss biodata analytics startup. Its aim is to fast-track omics data analysis processes in Life Science and significantly reduce R&D overhead costs by developing highly intuitive and interactive platforms for biologists.

➤ bigomics.ch

InkVivo

InkVivo 3Designs advanced delivery systems to solve one of the biggest challenges of current medications: the temporal release of active ingredients.

➤ inkvivo.tech

Liberty Medtech

Liberty Medtech created a solution for those who cannot move independently in bed. It allows disabled people to move in 3D and autonomously while in bed.

LightHouse Tech

LTH01 is a wearable mobility device helping blind and visual impaired people travel outside their homes safely. It is designed to reduce the risk of dangerous collisions with unseen objects above the waist, an area unprotected by the traditional white or blind cane.

➤ lighthouse.tech

MV BioTherapeutics

MV Bio develops biotherapeutics with multiple indications due to the adaptive modulation of the gut ecosystem. We aim at improving cancer immunotherapy, correcting dysbiosis and preventing enteric infections.

➤ mv-bio.com

QM_Project

QM_Project allows public and private sector to manage and predict Human Behavior in critical situations, to save lives and create value by providing prediction models and platform for training, performance, safety, medical R&D.

➤ qmproject.ch

Regenera

Regenera is a medtech startup, aiming at translating into clinics its proprietary innovative combined approach for sub-acute spinal cord injury repair.

➤ regenera.at

Swissponic

Swissponic developed a modular hydroponic system that allows growing healthy vegetables easily without any horticulture skills in any space at home or in dedicated green rooms for urban farming communities.

➤ swissponic.ch

Social Science and Business Management

Heima

Heima offers self-sustainable cabin-based developments in pristine locations, controlling the whole value chain, from design to management.

➤ ourheima.com

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USI
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Annual
Report

2022