

35	MUVON Therapeutics	Mohr-Haralampieva	Deana	Life Sciences & Biotech & Pharma	MUVON Therapeutics is a, Swiss biotechnology spin-off from the University of Zurich with the goal of developing and commercializing an autologous cell therapy, the MPC Therapy, for the regeneration of skeletal muscle tissue. The MPC therapy uses the patient's own muscle precursor cells (MPCs), isolated from a small biopsy and expanded under GMP conditions, to regenerate damaged skeletal muscle tissue consequently increasing the muscles contraction strength. Our initial therapeutic focus is the treatment of stress urinary incontinence (SUI), affecting over 200 million people, offering a low-risk, minimally invasive treatment thus potentially providing a cure for this highly-prevalent disease, allowing patients to regain control and live to their full personal and professional potential.
47	cellvie AG	Schueller	Alexander	Life Sciences & Biotech & Pharma	We are deriving medicines from cells. Specifically, we are leveraging the therapeutic potential of mitochondria to address cells' failing energy metabolism in conjunction with ischemia-reperfusion injury. We are transplanting mitochondria into distressed cells during reperfusion with the first indication being in organ transplantation, followed by heart attacks. With >20 pre-clinical studies and an ongoing pilot, we are confident that this therapy is safe and that it may improve and save the lives of thousands of patients each year.
58	Nagi Bioscience SA	Cornaglia	Matteo	Life Sciences & Biotech & Pharma	Nagi Bioscience aims to revolutionize the way toxic and/or therapeutic effects of substances are tested today, by combining the use of microorganisms as in vivo models for drug/chemical screening with the first technological platform for their fully automated in vitro culture, treatment and analysis. Our goal? Promoting a new sustainable substance testing paradigm, based on the replacement of traditional animal testing to re-boost innovation and efficiency in pharmaceutical, cosmetic, and chemical industries.
65	HemostOD SA	Khechana	Faouzi	Life Sciences & Biotech & Pharma	HemostOD's ambition is to supply donor-free, stem cell-derived, ex vivo platelets. Platelets are small blood cells whose function is to stop bleeding. Currently, the only source is blood donation. By fabrication on demand, HemostOD's solution, 10 years of R&D, will provide the only efficient alternative to life-saving blood donor platelet transfusions, which are facing recurrent shortage issues, threat of bacterial/viral contamination and expensive life-threatening complications. The worldwide platelet concentrate transfusion market is estimated to be more than \$10Bn with 10 million PC transfusions, mainly located in the US, JP and EU. The main growing factor is the increasing prevalence of cancer and aging of population. Ex Vivo platelets customers are hospitals and blood banks.
100	Babylat GmbH	Yudina	Zina	Life Sciences & Biotech & Pharma	Premature infants with very low birth weight (<1.5kg) need four times higher protein content than human milk alone can provide (still being a golden standard food for any neonate). Without fortification of human milk by additional the protein content these infants cannot gain weight which can lead to lifelong delays and disorders. Around 1.5% of all neonates have very low birth weight and need protein-enriched milk during first two-three months of their lives daily. We develop a novel automated device - BABYLAT Enricher - which concentrates the protein fraction from human milk onsite in hospitals. Our innovative proprietary technology allows efficient protein extraction from human milk to help these neonates to grow faster by the safest way and avoiding cow milk protein consumption
115	Eir Drop Biosciences	Rolli	Rafael Alain	Life Sciences & Biotech & Pharma	We are developing an innovative, scalable, and patentable biotechnological platform based on Cell-free Technology to produce pure, consistent, and compliant high-value therapeutics. Cell-free replaces current methods of biomanufacturing of plant-based molecules that rely on plant extraction and recombinant microorganisms like yeast and bacteria. We are finishing our proof of concept by developing the first scalable cell-free biosystem to manufacture biosynthetic cannabidiol (CBD) using only glucose as substrate. With our portfolio of therapeutic molecules and integrative psychological therapies, we plan to provide new holistic treatments for mental health conditions such as treatment-resistant depression (TRD), OCD, PTSD, and food addiction; that affect over 400 million people worldwide.
191	Bionomous Sàrl	Bonnet	Frank	Life Sciences & Biotech & Pharma	A Bionomous, nous développons des outils permettant l'observation et le tri automatique de petites entités biologiques utilisées couramment dans la recherche, notamment l'œuf et la larve du poisson-zèbre, un modèle très utilisé notamment pour les études en génétique, toxicologie, mais aussi pour la recherche sur des maladies comme le cancer. Notre machine permet d'accélérer certains procédés pénibles effectués actuellement à la main, tout en les standardisant, en diminuant les coûts liés à ces recherches. Une fois le marché niche du poisson-zèbre atteint, nous visons à étendre nos lignes de produits pour viser d'autres marchés, pour un marché potentiel total de 1.6 Milliards CHF atteint d'ici 2030.

76	Rigi Technologies SA	Klaptocz	Adam	Interdisciplinary	<p>Rigitech is creating the future of last-mile healthcare logistics through electric-powered drone delivery networks powered by cloud-based centralised operation. Our autonomous Air Bridge networks connect sample collection points (local clinics or laboratories), centralised regional laboratories or vaccine delivery warehouses through direct point-to-point drone delivery routes. We make drone delivery accessible - our drones are safe and easy to use, our software is aviation-grade, and we manage flight permissions for our customers.</p> <p>The COVID pandemic has only strengthened our resolve - we are committed to ensuring every person has access to tests, medicine and vaccines, especially in hard-to-reach areas.</p>
123	Auxivo AG	Bartenbach	Volker	Interdisciplinary	<p>Today, work related musculoskeletal injuries and sickness caused by heavy lifting and carrying cost more than USD 30 billion per year in the EU alone. At Auxivo, we are developing a new generation of lightweight, wearable exoskeletons for industrial applications that will ultimately significantly reduce injuries and their related costs. Our first product, the LiftSuit, developed in partnership with Swissport International AG, has generated considerable interest from several large companies such as Swissport, KLM, Dnata, FedEx, Migros and Postal Services. In addition, together with several Swiss construction companies, we are developing the CarrySuit to carry heavy loads on construction sites. We launched a pilot series of the LiftSuit in 2020, and plan to launch the CarrySuit in 2021.</p>
135	Art Recognition AG	Popovici	Carina	Interdisciplinary	<p>At Art Recognition we have developed a new, innovative AI tool, that is capable of establishing the authenticity of an artwork just by analyzing its photograph. The algorithm first learns the main characteristics of an artist from a set of photographs of original artworks by that artist. When submitting a photo of a questioned artwork, the program can determine whether the artwork is original or fake. We already collaborate with several experts & organizations, who confirm that our technology is complementary to traditional authentication methods, but at the same time is more precise and faster than these methods. Both company founders are art lovers with strong technical backgrounds, and are surrounded by very skilled advisors from art industry and academia.</p>
212	MIRAI FOODS AG	Mayr	Christoph	Interdisciplinary	<p>We are an early stage cultivated meat company based in Switzerland (miraifoods.com), cultivating real meat from animal stem cells. Unlike nearly all other players, we do NOT (genetically or otherwise) modify the cells. We do what the animal does - just outside its body. We have the best reason to believe that our natural approach will convince consumers and regulators.</p>
102	FLY 4 ALL SA	Legris	Corentin	Services	<p>EVEN est un réseau de petits bateaux autonomes à hydrofoils qui redéfinissent le concept de mobilité maritime, en l'adaptant aux contraintes de demain. Avec notre design innovant et nos technologies embarquées, nous réduisons les coûts de transport de 70 % par rapport aux camions (en tonne/km). De plus, le déploiement de EVEN ne nécessite aucune infrastructure lourde, afin d'intégrer ce nouveau type de réseau régional de transport. Les bénéfices indirects de notre technologie sont également très importants; -Réduction de la pollution mondiale en s'inscrivant dans l'objectif de réduction des émissions de gaz à effet de serre de 50 % d'ici 2050.-Réduction de la pression sur les infrastructures routières causée par les taux élevés d'urbanisation.- Favoriser des modèles d'échanges régionaux.</p>
107	NunIQ	Escano Serrano	Carmen	Services	<p>NunIQ is the only beauty brand that delivers to your door a plastic-free, personalized, natural products offering, based on a circular economy model. We merge beauty excellence with exemplary responsibility, finding a new no-compromise value proposition in terms of ethics and eco-design, but having, at the heart of our products, desirability, pleasure, emotion and efficacy. Our mission is to lead the evolution of self-care, helping consumers fall in love again with the category by giving them an alternative to make more educated choices in terms of ingredients, rituals, packaging and sustainability.</p>
192	Uzuffy Sarl	Kirchhoff	Romain	Services	<p>According to McKinsey research, the construction industry is currently one of the least digitized industries, just after agriculture & hunting. Today, architect and engineering companies lack visualization tools to share construction projects with key stakeholders and they rely on traditional surveying firms to model initial site conditions leading to high costs, long timelines, and a lack of stakeholder engagement. Uzuffy has the unique potential to unlock the power of drone technologies for both the urban development market as well as the infrastructure market. By using its deep knowledge in drone operations and unique processing and post-processing capabilities, Uzuffy creates up-to-date, precise and ultra-photorealistic 3D models which can be used for visualization and technical purpose</p>
14	Plastogaz SA	Bobbink	Felix	Cleantech	<p>Plastogaz develops processes for the transformation of waste plastic into value-added products. Our technologies are centered on catalysts that enable complex transformations. We work directly with the waste producer to determine with them how to valorize their products when they have reached the end of their useful life.</p>

62	LEDCity AG	Deuss	Patrik	Cleantech	Die LEDCity AG ist Zürcher Cleantech-Startup. Mit Unterstützung des Bundesamts für Energie haben wir smarte LED-Leuchtmittel entwickelt, die den Energieverbrauch um durchschnittlich 90 Prozent reduzieren können, indem sie das Licht automatisch an die tatsächlich benötigte Lichtdauer und -intensität anpassen. Durch den geringeren Stromverbrauch und die längere Lebensdauer des Leuchtmittels kann so pro eingesetztes LEDCity-Produkt insgesamt rund CHF 300–500 eingespart werden. Unsere Vision ist es, den Energieverbrauch der Beleuchtung um 80 Prozent gegenüber unserem Gründungsjahr zu reduzieren.
63	Infrascreen	de Lalande	Henri	Cleantech	We believe that sustainable & organic vegetables must be made accessible to everyone. For this, greenhouses have to become both more profitable and more sustainable. We develop a nano-coated filtering material that provides growers with drastically improved climate management in the greenhouse without any energy input. This leads to far greater yield, lesser energy consumption and reduced CO2 emissions.
84	Cowa Thermal Solutions	Waser	Remo	Cleantech	Cowa entwickelt kompakte thermische Energiespeicher zur Steigerung des Anteil erneuerbarer Energie in thermischen Systemen. Die Kapazität von herkömmlichen, auf Wasser basierten Systemen wird dabei um bis zu Faktor 4 gesteigert. Die Technologie basiert auf Kapseln (COWA-Caps), die mit einem von Cowa entwickelten Phasenwechselmaterial (PCM) gefüllt sind, welche sehr viel Wärme dank Schmelz- und Erstarrungsvorgängen speichern können. Cowa-Caps sind ideal geeignet für Pufferspeicher in Photovoltaik betriebene Wärmepumpensystemen (PV-WP-Systeme), wo das PCM in den Kapseln mittels PV Überschuss am Tag über die WP geladen wird und das Gebäude in der Nacht mit dem Speicher beheizt werden kann. Der Heizautarkiegrad üblicher Systeme lässt sich so typischerweise von rund 30% auf 70% steigern.
88	Exnaton AG	Ableitner	Liliane	Cleantech	Exnaton creates a green and sustainable energy system using data, algorithms, and apps. Our B2B software for power companies seamlessly manages all our distributed energy resources like solar panels and electric vehicles. Our first service is the introduction of energy communities, in which Julia buys green electricity directly from her neighbor John who owns a solar system. That way, investing in renewable energy is easy and fun. The software is sold directly to power companies that want to create value from existing smart meter data with our data crunchers, offer energy communities to their own customers (households), and/or efficiently manage the distribution of electricity making use of stationary batteries, heat pumps, or electric vehicles.
91	Regli Energy Systems AG	Münzel	Julian	Cleantech	We are developing, producing and commercializing the most sustainable heat pump that uses the natural refrigerant R-290/propane as working medium and shows highest efficiency properties. Our heat pump Nova is proven to be the most ecological and sustainable solution of its kind on the market, as we use natural refrigerants and are 700 times more environmentally friendly than our competitors with conventional heat pumps. We aim to bring our products to every house and building and thus reduce the overall carbon footprint drastically. We are innovating the heating sector and work towards a sustainable future.
119	Shematic Sàrl	Flüeli	Cédric	Cleantech	Shematic aims to bring a more powerful, lightweight and more efficient electric motor and battery pack to the booming Light Electric Vehicle market (LEV). The new motor and battery pack technology are capable of doubling the autonomy and triple the commercial load of current LEV vehicles compared to state-of-the-art solutions. More specifically, Shematic has developed a new electric motor platform (motor and battery pack) that can easily replace old technology electric motors or combustion engines solutions currently found on 2 and 3-wheel vehicles.
127	Cyltronic AG	Wehrli	Jeremias	Cleantech	Cyltronic AG launches worlds one and only electric cylinder for direct replacement of standard pneumatic cylinders. By replacing pneumatic cylinders with our cylinder, energy savings of up to 95% can be achieved and replacement has never been easier. We have designed our cylinder to minimize the barrier to switching from pneumatic to electric cylinders, addressing the pain points of machine builders and users and helping them to make their machines more efficient and environmentally friendly. An industry with pneumatic-free and efficient machines is our vision, therefore Cyltronic becomes the brand for compact and user-friendly linear actuators.
128	Oxyle AG	Mushtaq	Fajer	Cleantech	Oxyle has developed novel wastewater treatment reactors capable of destroying over 90% of a wide variety of toxic micropollutants from wastewater effluents, including the highly persistent compounds that are resistant to existing treatments. In contrast to existing technologies, our green approach is highly efficient, cost competitive, uses clean energy sources, and imposes a low carbon footprint. We will provide modular reactors of varying sizes to meet the cleaning requirements of various customer segments. Decentralized cleaning will be provided with our small reactors to industries, hospitals, research laboratories, chemical companies who are interested in avoiding leakage or intermixing of hazardous wastewater. A patent has been filed in 2018 to protect our invention.

151	Urbio SA	Cajot	Sébastien	Cleantech	<p>40% of carbon emissions come from buildings. While clean technologies exist, their implementation is too slow to reach climate targets, mainly because engineers in utilities and consulting companies still rely on paper and spreadsheets, leading to slow and costly processes. Our solution is Urbio, a software that uses "generative design" to identify in a fraction of the time the best energy technologies to heat, cool and electrify buildings.</p> <p>We are targeting the energy planning software market estimated at \$22 billion per year.</p> <p>We closed 7 commercial pilot projects since starting our commercial activities in May. Backed by a first investor and over 500k in non-dilutive funds, we are on tracks to release a scalable version in 2021 to expand our activities in Switzerland and Europe.</p>
166	SmartBreed GmbH	Bertschi	Christoph	Cleantech	<p>SmartBreed fertigt automatisierte Zuchtboxen für Heuschrecken. Diese können direkt bei unseren Kunden aufgestellt werden. Somit können Zoos, Lebensmittelhersteller und Landwirte ihre Proteinfuttermittel selbst herstellen. Die Heuschrecken wandeln in den Boxen Agrarnebenprodukte schweizerischer Herkunft in wertvolle Proteine um. Sie werden an Zootiere oder Legehennen verfüttert oder für den menschlichen Konsum gezüchtet. Mittels Sensoren messen und steuern wir das Mikroklima in den Zuchtboxen, um den Heuschrecken die optimalen Bedingungen zu gewährleisten und unseren Kunden eine effiziente und kostengünstige Zucht vor Ort bei ihnen mit geringem Aufwand zu bieten.</p>
176	Cleveron AG	Gagliardi	Pietro	Cleantech	<p>CLEVERON reduces the energy consumption and CO2 emissions and ensure a good indoor environment in order to reduce the environmental impact of buildings.</p> <p>CLEVERON is a fully automated and self-learning heating management system developed for existing buildings that reduces the energy consumption up to 30%.</p> <p>CLEVERON includes users habits, building structure information and the weather forecast in calculations to optimize the heating, optimize the air quality and thus reduce the energy consumption ensuring high comfort.</p> <p>CLEVERON offers the possibility to monitor the air quality of rooms like classrooms and offices in order to ensure high comfort, reduce absenteeism due to illness and increase the performance of the users.</p>
178	Green-Y Energy AG	Schnarwiler	Dominik	Cleantech	<p>Green-Y - the energy future already today: A profitable and clean energy storage provides renewable energy when and where it is needed. Combining electricity storage, heating and cooling in one device results in unrivalled low storage costs. The scalability and its central and decentral applications result in a wide range of use cases as well as potential customers and target markets. Our patented technology is proven on a prototype, the first two customer projects are secured and the 825k seed investment round is closed! Join the energy revolution – today.</p>
179	voltWALL SAGL	Padoan	Andrea	Cleantech	<p>The sun shines only during the day while most of us require electricity at night. For this reason, stability of clean electricity requires environmentally friendly Energy Storage Systems. voltWALL has developed a completely modular unit that is liquid thermally managed, with total independence between modules, eliminating complex liquid and electrical connectors. voltWALL is producing the only modular system in the industry with modules that weigh 10 kilos, making it more convenient, easier to maintain and profitable for installers and service engineers. The result is xBlade, the basic module within all our products. This is a revolutionary method for energy storage that makes our products compatible with existing systems and industry standards but establishes a gigantic leap forward.</p>
183	iWin - innovative Windows	Roldan Molinero	Ruben	Cleantech	<p>iWin produces photovoltaic (PV) windows, which are basically PV modules in the form of compact and multi-functional windows. It combines a Venetian blind as a shading device with PV cells between two glass panes to conveniently control the incoming sunlight and to produce renewable energy with the best possible view out. We believe, that the building façade is no longer only a passive element ensuring waterproofing or insulation, but also an active surface able to produce renewable energy, and our mission is to turn skyscrapers into sustainable power plants.</p> <p>The estimated serviceable market is above 9.0 Bn CHF/y and first customers has already requested a minimum sales volume of 7 mio CHF/y by 2023 and showed interest to demonstrate the technology into real operational environment.</p>
202	SmartHelio	Upadhyay	Govinda	Cleantech	<p>SmartHelio brings second life to solar panels, helping to generate more clean energy and prevent e-waste. We have build a patent pending hardware and deep diagnostic technology which can detects sick solar panels, helps them to get repaired and reused. Our product is easy and affordable and helping solar installers to generate more clean energy. Our technology consist of a smart hardware which get connected directly with the solar panel and identifies and categorises the faults and accordingly our diagnostic software provides mitigation solution to make these solar panels alive again.</p>

203	Terrabiom	Pinto	Eric	Cleantech	<p>Terrabiom is a soil regeneration company aiming to recover degraded lands contaminated from mining activities. In collaboration with UNIBE and ETH, we have developed a mining rehabilitation process (recover, regenerate, revalorize) to extract soil arsenic, increase soil carbon and monitor the soil health.</p> <p>What makes us unique? 1), we have a microbial-based technology, 2) we are the first start-up that support the lifecycle of mining activities, and 3) we aim at systemic change: to transform environmental mitigation into regenerative business opportunities. Our soil regeneration process will result in comprehensible and universal soil indicators that will replace the obsolete and artificial carbon credits. When Tesla needs lithium, Terrabiom will ensure that was extracted properly.</p>
27	Authena AG	Panzavolta	Matteo	ICT	<p>We believe in a future free of counterfeiting and fraud. Authena revolutionises how brands of high value goods protect their product & reputation Vs. counterfeiting and reach next level of customer engagement.</p> <p>We created an end-to-end technology framework which can be used as a "Plug and Play", but also open to integrate the most complex B2B setup.</p> <p>Authena is the only solution able to integrate efficiently:</p> <ul style="list-style-type: none"> - Fraudulent re-filling protection - Traceability & grey market prevention - Product opening identification - Instantaneous authentication of genuine products. <p>Currently working with international corporations in Agrochemical, Industrial, Luxury & Food & Beverages, entering in Pharma. Winner of Luxury innovation Award 2020 and Top100 Swiss Startup Public Voting Award.</p>
60	mindcraft GmbH	Hönger	Josua	ICT	<p>At mindcraft, we develop a truly disruptive 3D data capturing and visualisation technology.</p> <p>We have created all key components of an eco-system needed for 3D scanning real-world objects, then processing and publishing them as Digital 3D Twins - in unmatched, photorealistic quality!</p> <p>Our vision is to fully automate the process of Digital 3D Twin creation, eliminating the remaining human post-editing steps.</p> <p>Our SmartCloud enables us to connect to emerging technologies such as Augmented Reality 3D Shopping and 3D Recognition.</p> <p>The productive high-quality Digital 3D Twin creation is the basis for a real breakthrough in those markets. It clearly unlocks new possibilities for human interaction, communication and decision-making.</p>
61	kaiosID SA	Wüthrich	Johan	ICT	<p>KaiosID is a traceability solution for consumer goods. We help brands to fight counterfeiting, illicit trade and build consumer trust and awareness by adding smartphone readable, invisible and unique hidden random patterns on the product's packaging.</p> <p>Unlike invasive and easy to neutralize QR codes, barcodes or serial numbers, our invisible solution is fully integrated in the design and covers the whole packaging while being easily identified with an intuitive smartphone app.</p>
74	fidentity GmbH	Hau	Thorsten	ICT	<p>Our near term goal is to make identity verification scalable and seamless. The long term goal is to make identity portable.</p> <p>Financial service providers must identify their customers before doing business (perform KYC). Available solutions suffer from low automation and/or bad user experience. fidentity makes KYC simple, does not need an app and is fully automated. Our near term goal is to replace video ident with fully automated identity verification.</p> <p>The next step is to become a bank for identities so that identity becomes portable. We maintain the identity of a customer and inject the information in arbitrary business processes, enabling the customer to seamlessly make valuable transactions online.</p>
83	DeepJudge	Grnarova	Paulina	ICT	<p>Legal teams are more overloaded than ever: suffering from slow processes and inefficiencies, they spend a vast amount of time working on tedious low-level tasks that can be automated with DeepJudge.</p> <p>DeepJudge is the next-generation AI-powered legal document processing platform that can automatically highlight and anonymize sensitive information, smartify documents by augmenting them with external data, and search for related relevant documents across in-house databases.</p> <p>Founded by four Machine Learning PhDs, with over 20+ years of combined experience with Deep Learning and Natural Language Processing at scale, DeepJudge sets a new bar in context-aware legal document understanding. The resulting efficiency gains provide a real competitive advantage to our customers.</p>
89	Soobr AG	Adank	Kaspar	ICT	<p>Soobr ist eine Software für die dynamische und bedarfsorientierte Gebäudereinigung, basierend auf Daten und künstlicher Intelligenz. Zur Senkung der Kosten, Erhöhung der Transparenz und Fairness sowie Steigerung der Qualität.</p> <p>Unsere Kunden sind Facility Manager wie ISS oder Konzerne wie Roche oder soziale Institutionen wie Werkheime, welche mit unserem Produkt die Reinigung planen und ausführen.</p>

120	AICA SARL	Huber	Lukas	ICT	AICA is a Swiss technology company specialized in simplifying the interaction with robots. We provide software, which integrates Artificial Intelligence and state-of-the-art control algorithms to democratize the programming of robots. Our technology results in a reduction of programming time, improving quality and precision. The end-user is able to raise productivity and reduce costs. Our software is proprietary and developed in cooperation with the EPFL University of Technology in Lausanne. Our purpose is to enable companies of any size to keep their production in house and to create more self-empowering, productive employment. This makes production in Switzerland again viable. We believe that flexible automation and AI will allow that no human has to be stuck doing repetitive tasks.
142	Dedomena GmbH	Hess	Virginia	ICT	Dedomena ist ein bahnbrechendes Datenanalyse-Startup, das die Stadtplanung auf die nächste Stufe hebt. Wir befähigen Stadtplaner, Regierungen und Unternehmen, das Leben in Quartieren mithilfe sozialer Daten (u.a. Social Media, Crowdsourced, Mobility und statistische Daten) zu verstehen und zu quantifizieren, um lokale Aktivitäten besser planen, gestalten, verwalten und unterstützen zu können. Wir werden eine Vielzahl von Datenquellen miteinander verknüpfen, um jederzeit umfassende, zuverlässige und aktuelle urbane Erkenntnisse zu liefern, die es den urbanen Entscheidungsträgern ermöglichen, effektive Planungs- und Investitionsentscheidungen zu treffen und gleichzeitig die Lebensqualität möglichst aller Bürger zu verbessern.
150	greentensor	von Planta	Cyrill	ICT	We develop a machine learning software to train neural networks faster. Machine learning is now used in many applications from image processing and natural language processing, to finance, medicine, and many more. The neural networks used in these applications have now billions of parameters and take days or weeks of training on dedicated (super-) computers. In our software, we use algorithms from our field of expertise and transfer them to machine learning, where they are hitherto unknown. Training neural networks faster, using algorithmic improvements brings value to our customers by saving time and reducing their electricity bills. Since every form of electricity comes with an environmental impact, it also makes our customers greener, hence the name greentensor.
234	Dotphoton AG	Balysheva	Eugenia	ICT	In the near future, there will be more machines looking at images than humans. With the exponential growth of AI and imaging technologies, raw high-quality image data becomes a necessity. Such need is particularly present in the biomedical, aerospace, and automotive sectors, where big amounts of high-quality data must be processed very quickly. Dotphoton meets the need for raw imagery to become more scalable and suitable for machine vision and AI for all these applications. Dotphoton provides a lossless raw image compression software solution that is seamlessly integrated into users' workflows.
6	condenZero GmbH	Sutter	Denys	Micro- & Nanotechnology	Modern science requires cold temperatures close to the "absolute zero point" at -273°C, for applications such as superconductivity in medical scanning devices or quantum computing. Cryo-TEM (transmission electron microscopy), a Nobel-prize winning research tool to study molecules/proteins (drug development) and materials, can sustain this coldness for only 15 minutes. With this restriction, scientists in the cryo-TEM space are slowed down in creating high scientific output. Our company condenZero invented a cooling technology to enable cryo-experiments to last 24 hours instead of 15 minutes.
54	Isochronic AG	Haas	Melvin	Micro- & Nanotechnology	Isochronic's mission is to improve the industrial efficiency of our customers through the development of new type of industrial robots that are faster, more adaptable to our customer's problems, more compact and a lower cost of total ownership. Our differentiator to existing actors is our proprietary "Continuous Motion" robot concept featuring multiple sliders which operate in parallel to vastly accelerate pick & place applications. While the new robot type promises a real breakthrough in performance, it is also highly compact and consumes significantly less energy per transported part than currently available robots. A testimonial from industry expert summarizes the potential of our innovation which is poised to "open another era in the robotics industry".
152	dimpora AG	Stucki	Mario	Micro- & Nanotechnology	dimpora develops, produces and sells membranes for the outdoor clothing industry. We are a B2B provider of membranes and laminates that are bought by outdoor brands. Our products provide them with a sustainable solution without a loss in performance. This allows them to move from old, resource intense and chemically harmful processes and product to a modern solution. We are currently scaling our production of our first product dimpora eco purTM from pilot to full scale to fulfill orders on a global scale.

182	XRnanotech	Döring	Florian	Micro- & Nanotechnology	XRnanotech addresses the worldwide need for nanostructured X-ray optics to focus high-energy beams at highest resolutions and maximal photon efficiency onto the smallest possible samples like viruses, proteins, or transistors. In this niche, it provides unique solutions for several hundred large-scale R&D beamlines and high-tech companies around the world. Our unique selling propositions are: 1) Highest resolutions: We deliver the sharpest images of the smallest structures. 2) Maximum photon efficiency: We focus the most photons on the sample to reduce time in beam, increase the throughput and thus save time and money. 3) Unprecedented stability: Advanced materials allow us to create optics that can withstand the energies of ultra-high intensity X-ray laser beams.
184	Lumiphase AG	Abel	Stefan	Micro- & Nanotechnology	Did you know that: - Watching a movie on Netflix emits as much CO2 as a flight from Zurich to San Francisco - Our worldwide ICT infrastructure already consumes 7% of global electricity while the global data traffic is doubling every 3 years - The vast majority of energy consumption and cost is coming from moving data and not from computations We are a deep tech semiconductor hardware company developing products that make optical communication so cheap, compact and efficient that within 10 years, we will grow the number of optical connections in datacenters and telecom networks across the globe from 10s of millions to 10s of billions, enabling every person on the planet to access higher quality and more intelligent services and content, while saving massive amount of energy and cost.
222	Unisers AG	Altun	Ali Ozhan	Micro- & Nanotechnology	Semiconductor chip producers like Intel, Samsung and TSMC lose up to 70% of their production due to particle defects on chip surfaces. We can solve this problem if we know the source of particle defects, which is only possible if we can find them on chip surface. Finding a 10 nanometer defect on a chip surface is like finding an apple on France, and it needs to be done within minutes. As an ETH spin-off, we are the only company which can address this problem with our surface particle scanner which combines a patented nano-coating technology which makes invisible particles visible, and an optical scanner. Our surface particle scanner will help the semiconductors industry generate an annual financial benefit up to 20b USD by improving the manufacturing yields.
18	Oncobit	Scheckel	Claudia	Medtech	Oncobit enables personalised cancer care by developing novel diagnostic and monitoring tests to find the best cancer treatment for each patient. We have working prototypes and even patient data for all our products. We are a team with extensive biomedical research, bioinformatic and startup experience and are affiliated with leading melanoma centers in Switzerland. Our initial focus is therefore on melanoma. Yet our approach is data centric, and both the design and analysis of our tests is scalable and easily adoptable to other types of cancer.
22	Sedimentum AG	Cilurzo	Sandro	Medtech	Die Sedimentum AG ist ein Healthcare Startup, welches einen technologischen Schutzmechanismus zur Gewährleistung der physischen Sicherheit von unbeaufsichtigten Personen entwickelt hat. Diese Lösung eignet sich unter anderem zur Unterstützung sowie Entlastung des Pflegepersonals in psychiatrischen Kliniken, Pflegeheimen für ältere Menschen und andere Dritte wie beispielsweise Angehörige von Senioren. Diese Obhutspersonen werden in Echtzeit über Unregelmässigkeiten (bspw. Stürze) informiert und dadurch befähigt, rechtzeitig die notwendigen Massnahmen zum Schutz der unbeaufsichtigten Personen zu ergreifen. Sedimentum entwickelt die erste kontaktlose Lösung zur Sturz- und Notfallerkennung im Gesundheitswesen, ohne dabei die Privatsphäre zu gefährden.
45	Neurosoft Bioelectronics	Vachicouras	Nicolas	Medtech	1.5% of the population suffers from Tinnitus and in 5% of the cases it is so severe that it significantly impacts quality of life, by causing problems with work, sleep and potentially leading to suicide. Current solutions to relieve this problem rely on headphones, but they only cover up the noise. Neurosoft is on a mission to alleviate this problem using its unique platform technology, a new class of brain implants made of soft materials that seamlessly interface with the nervous system to reduce the symptoms of Tinnitus, by electrically stimulating the auditory cortex on the brain. Available neural electrodes do not possess the soft abilities of Neurosoft technology, that allows for safe and long-term implantation, making it ideal to treat major neurological disorders.
56	EarlySight SA	Laforest	Timothé	Medtech	EarlySight is developing a medical device to help doctors detect and treat eye diseases at early stage thanks to precise measurement of the eye condition. Many ocular diseases (e.g. Age-related Macular Degeneration, Glaucoma affecting respectively 196 M and 96 M people worldwide) start with the degeneration of the retina cellular structure which is invisible to current examinations. Consequently, the diagnosis and treatment of retinal diseases is made too late, at a time when the patient often has some irreversible vision loss. The problem is that standard of care instruments are not precise enough. Our instrument can observe and quantify the retinal cells with a ten times more precise image, which can greatly improve the diagnosis by providing objective evidence of the disease progression

69	QUMEA AG	Gyger	Cyrrill	Medtech	QUMEA adressiert den Pflegeengpass, macht den Spital- und Heimaufenthalt sicherer und unterstützt therapeutische Entscheidungen. Die Grundlage unseres Systems ist ein hochpräziser 3D-Radarsensor, welcher im Zimmer installiert ist und jede noch so kleine Bewegung des Patienten kontaktlos erfasst. Unsere künstliche Intelligenz liefert Handlungsempfehlungen und alarmiert via intuitiver App, wenn Hilfe benötigt wird. Dadurch werden Stürze verhindert, Therapieerfolge messbar, die Genesung beschleunigt und die Betreuung von Patienten optimiert. Dies alles bei vollständiger Wahrung der Privatsphäre aller Beteiligten.
71	URODEA	Clavica	Francesco	Medtech	Patients suffering from urinary retention are unable to urinate properly, which strongly affects their quality of life. It is estimated that up to 23% of the population suffers from this condition. Treatments for urinary retention represent a multi-billion dollar global market. Despite catheters are the most commonly used therapy for bladder emptying, they are often the main cause of urinary tract infections. Our patent-pending technology is the world's first non-invasive solution for urinary retention. Our product is a handheld and external medical device, which aids bladder emptying by generating a urine flow while avoiding the contact with urine and eliminating the risk of urinary infections. Our solution can lead to a big cost reduction (>10x) for the healthcare systems.
106	Terapet SA	Vallgren	Christina	Medtech	Terapet SA, a CERN start-up, is founded by two CERN physicists and a leading radio-oncologist from HUG. The purpose of Terapet is to develop and commercialize innovative solutions for a safer, more precise and time-saving proton therapy for cancer treatment. Our product is a novel medical device which enables medical doctors for the first time to monitor the delivered proton dose inside the patients during cancer treatment: in-vivo, non-invasive, in 3D and real-time. With our solutions, we will eliminate one of the biggest obstacles: ensuring that every patient receives the right dose, every time. Additionally, our solutions have the potential to further boost the growth of proton therapy in the near future.
118	Volumina Medical	Béduer	Amélie	Medtech	Volumina Medical created AdiPearl™, an injectable implant with the capacity to regenerate damaged tissues for breast reconstruction in a single minimally invasive procedure. It is answering the high unmet need of 2millions of breast cancer patients/year who are missing a safe and reliable solution for erasing the severe disfigurement of their breast after tumor ablation. It is answering the high unmet need of 50 000 plastic surgeons who are currently frustrated to spend hours performing invasive surgeries for not achieving durable results. It is answering the need of reducing costs of care by replacing invasive procedures by a simple non-invasive injection procedure under local anesthesia.
129	Frater GmbH	Frasnelli	Andreas	Medtech	Die Verwendung von kalten Infusionen bei Patienten setzt diese einem Risiko aus, dies ist ein wissenschaftlich untersuchtes Problem, in der Fachwelt breit akzeptiert und gilt sowohl innerhalb als auch ausserhalb der Spitäler. Auf dem Markt gibt es zurzeit nur batteriebetriebene mobile Systeme zur Heizung der Infusionsflüssigkeiten welche viele Nachteile haben. Der völlig neue Ansatz einer chemischen Beschichtung zur aktiven Erwärmung ist bereits patentiert und wird in Zusammenarbeit mit international renommierten Forschungspartner, (EMPA, HSLU) entwickelt. Die angestrebte Lösung ist billig, effektiv, leicht, platzsparend, ist eine echte Erleichterung für die Retter und kann Leben retten. Die Marktsegmente sind zivile Rettung, militärische Rettung, Expeditions- und Veterinärmedizin.
130	Fair&Square sàrl	Jacot	Stéphanie	Medtech	Falls are on the rise worldwide with a dramatic increase of 30% in the United States between 2007 and 2016 and, in 2015, the total medical costs for falls totalled more than \$50 billion there. Many people who fall, even if not injured, become afraid of falling again and, this fear may cause a person to cut down on their everyday activities. When a person is less active, they become weaker and, this multiplies their chances of falling again by 20. These are the reasons why we are developing Rise Up: the only autonomous medical device on the market to help someone get up. Rise Up is used both at home -especially for disabled people and seniors- as well as in medical institutions to help nurses do their job swiftly and in complete safety.
134	flowbone SA	Kettenberger	Ulrike	Medtech	In our aging society, we are facing a fragility fracture crisis and fracture prevention in the elderly is an urgent topic. Hip fractures are the most costly and devastating type of fracture with a 1-year mortality of a staggering 20%, but today both drugs and surgical strengthening techniques cannot prevent them efficiently. At flowbone, we have developed a new generation of injectable biomaterial that can be applied to the hips in a simple ambulatory procedure and strengthens the bone locally and rapidly through a highly innovative process called "local bone seeding". This gel can be used in combination with bone-strengthening drugs for a maximum of protection or as stand-alone solutions for patients that cannot or do not want to take drugs.

149	ribolifeDx SA	Sahi	Siew-Veena	Medtech	Testmate Health is developing the first rapid at home self-test that provides results in minutes not hours or days, for the common sexually transmitted diseases (STDs). This replaces the status quo where common STDs can only be detected in a lab, by providing consumers with an anonymous, convenient & fast option that they can use directly in the comfort and privacy of their homes. Our smartphone supported test allows quick follow-up for guidance & treatment in the case of a positive result.
215	Emovo Care SA	Randazzo	Luca	Medtech	Emovo Care is a Swiss startup developing accessible assistive devices to bring movement home for people with motor impairments. The first product, Emovo Grasp, is a portable robotic orthosis that actively opens and closes the hand of people with hemiparetic hand impairments. The product was carefully designed to enable independent use to support functional grasping directly at home. The core technology behind the device is based on patent pending tendons developed throughout a Ph.D. at the world recognized university EPFL, and was co-developed with >150 clinicians and patients at Swiss partnering clinics. The unique selling proposition of the device is the active opening of the hand, which gives the product the competitive advantage of targeting the large and growing market of stroke.