## SWITZERLAND INNOVATION

THE BEST PLACE FOR YOUR INNOVATION



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### **WHO WE ARE**

There are a number of reasons to choose Switzerland as a location for business or research and development: political stability, a high level of legal certainty, a liberal economic system, outstanding infrastructure, excellent education and health systems, close links to foreign markets, a competitive tax system and a high standard of living are just a few examples.

These are also the reasons why Switzerland is one of the world's most economically successful and innovative countries. This success needs to be maintained, and the foundation for future innovation activities needs to be laid. In an increasingly globalized world and in times of digitization, Switzerland is aiming to strengthen its position as an innovator through the work of Switzerland Innovation.

At five sites (Park Basel Area, Park innovaare, Park Zurich, Park Network West EPFL and Park Biel/Bienne), space is created to allow talents from across the globe to network with universities and innovative companies. All sites offer first-class accessibility and are close to universities, suitable for further expansion and in attractive areas. Innovative companies are thus provided with the perfect conditions to focus on quickly transforming their innovations into marketable products. Switzerland Innovation relies on the know-how of more than 10,000 researchers.

We are happy to provide you with more information about Switzerland Innovation – the best place for your innovation. Please do not hesitate to contact us.

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Switzerland Innovation - Connecting Great Minds.

## SWITZERLAND INNOVATION

SWITZERLAND IS THE INNOVATION WORLD CHAMPION. WE HAVE THE TALENTS, KNOWLEDGE, NETWORKS AND NECESSARY SPACE TO ENABLE IDEAS TO BE CREATED AND SUCCESSFULLY TRANSFORMED INTO MARKETABLE PRODUCTS.

### **OUR OBJECTIVES**

The main aim of economics, science, politics and society is to maintain Switzerland's position as a leading researcher and innovator. In order to help achieve this goal, Switzerland Innovation sets itself the following objectives:

- Realizing successful R&D collaborations between private companies, Swiss universities and other research partners
- Attracting domestic and foreign companies and research partners that develop new marketable products, services and processes
- Arranging investments from within Switzerland and from overseas for research and development
- Creating platforms to accelerate the development of research results into marketable solutions
- Creating attractive conditions for research groups and start-ups as catalysts for the localization of established companies
- Securing our attractiveness and competitiveness through clear competence profiles at the sites as well as excellent conditions and services for our customers

Switzerland Innovation operates five sites: Park Basel Area, Park innovaare, Park Zurich, Park Network West EPFL and Park Biel/Bienne. In addition to the five sites, the national organizing institution (Switzerland Innovation Foundation) ensures coordination between the sites and is responsible for international marketing.

Switzerland Innovation focuses on seven innovation areas: life sciences, energy, industry 4.0, materials, information and communication technology, transportation and mobility and enabling technologies. Each site has a distinct profile within these innovation areas and concentrates on clearly defined research and innovation focus areas.

### INNOVATION LOCATION SWITZERLAND -STRENGTHS AND OPPORTUNITIES

### Knowledge Center Switzerland

Global leader in innovation: Switzerland invests almost 3% of its GDP in research and development, with no less than 60 universities guaranteeing that outstanding work is carried out in this area. The educational institutes work closely with the international research community and participate in scientific partnerships. They form networks with industrial partners by sharing knowledge and technology, support innovative start-ups and found successful spin-offs. Organizations and companies in Switzerland and abroad value Switzerland as a hub for innovation and a place where excellent research is carried out.

### Quality of Life

Various studies name Switzerland as the world's happiest country. Money alone does not ensure happiness - it also requires justice, honesty, trust and health. Switzerland has a well-developed infrastructure, a high level of legal certainty and an established and balanced political system. Outstanding schools and day-care facilities for children and the beautiful natural landscape are further factors that make Switzerland an attractive location.

### Capacity to Innovate

Almost half of all people working in Switzerland are employed in knowledge-intensive industries. High-tech products are one of the cornerstones of the country's economic success and excellent reputation. Intellectual property, including copyright and patent, brand and design rights, enjoys effective protection. In 2014, almost 8,000 patents were submitted in Switzerland. That means the country is ranked eighth in the world and fourth in Europe – and, based on its population, it is the world champion. The number of Nobel Prize winners per capita – an area in which Switzerland is also a world leader – is also proof of Switzerland's research world champion credentials.

### **Business-Friendly Conditions**

Switzerland has a very liberal labor legislation. The labor market is subject to limited regulation. There is an active social partnership between employers and labor unions. Conflicts are solved through cooperation and communication. The Swiss taxation system is a further factor in Switzerland's success model. As a lean country with low taxes and levies, Switzerland is an attractive location for international companies. Companies and individuals can quickly and easily start a new company. Company founders from foreign countries are welcomed and afforded comprehensive support. In 2013, around a third of new companies were founded by foreign nationals.

In Switzerland, it is not difficult to find highly trained, multilingual, motivated and loyal employees. The Swiss education system unites excellent apprenticeships with an outstanding university education. This dual system offers an ideal mix of talent spanning theory and practice and it is one of the essential elements of the capacity for innovation and creativity that are typical of this country.

## INNOVATION AREAS

INNOVATION AREA	LIF	E SCI	IENCE	S						ENER	GY					IN	DUST	RY 4.0	)					MAT	ΓERIA	LS		C	MMO		ON AN ATION SY					NSP(				ENABL TECHN				
INNOVATION FOCUS	Medtech	Biotech	Health	Sport	Medicine	Radiology	Pharmaceuticals	Diagnostics	Biomedical Engineering	Power Generation	Storage	ransportation Smart Building	Green Fnerav	Energy Efficiency	Decommissioning of NPP	3D Technologies	Robotics	Additive Manufacturing		Sensors	Microtechnology	Automation	Lasers	Analytics	Advanced Materials	Extreme Environments	Kadiography	Surface Technology	Security	Smart Data	Networks	Social Media	Artificial Intelligence	Cloud Computing	Automotive	Space	Avionics	Drive Technology	Public Transportation	Smart Living Essential Technologies	Nanotechnology	Accelerator Technology	Optics	
PARK BASEL AREA	•	•	•		•	•	•	•	•							•	•	•		•			•		•					•			•								•		•	
PARK INNOVAARE	•	•			•	•	•	•		•			•	•	•	•				•	•		•	•	•	•							•		•	•					•	•	•	
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PARK BIEL/BIENNE	•		•	•	•			•	•	•	•			•		•	•	•		•	•	•	•		•				•	•	•				•	•		•	•				•	
PARK NETWORK WEST EPFL	•	•	•	•	•		•	•	•	•			•	•		•	•	•		•	•	•	•	•	•	•			•	•	•	•	•	•		•		•	•	• •	•		•	

### LIFE SCIENCES



### **MEDTECH**

Involves research for new medical devices and the simulation of biological and physiological processes to translational research. The research areas are medical image analysis, biomechanics, implants, biosensors, therapy devices and human-centered research.



### **BIOTECH**

competence are looking to create innovations in the use of biological processes, organisms and systems in a wide range of life science applications that will unlock new ways to enhance quality of life and respond to humanity's greatest challenges.

Projects in this field of



### **HEALTH**

Subjects of this field of research are nutrition, health care, prevention, health maintenance of the environment on the effects of diagnostic and therapeutic procedures.

and recovery, the impact health and the analysis of



### sport is growing.

**DIAGNOSTICS** 

**SPORT** 

We apply scientific prin-

the increasing pressure

to achieve better results,

demand for sports scien-

garding the performance

tists and knowledge re-

of the human body and

the materials used in

ciples in the fields of exercise and sport. With

This research focus deals with: beam instrumentation; measurement and detector systems for X-ray, visible light and particle accelerator beams (electron, proton, neutron) for medical, applied and fundamental research; high-speed analog/RF and digital signal processing electronics (FPGA, SoC) and software.



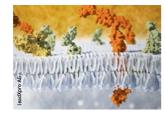
### **MEDICINE**

Developing new technologies that detect, support, repair and replace the functions of the human body including the nervous system, we strive to create solutions for new markets using bioengineering and neuroscience, considering life sciences as a central focus.



### **RADIOLOGY**

The use of imaging techniques that use sources such as X-rays, radioisotope sources and neutrons to examine, diagnose and treat diseases. Medical imaging can also be used to guide invasive medical procedures.



### **PHARMACEUTICALS**

Biomolecular research with a strong focus on the structure and function of proteins, in particular membrane proteins, enables the discovery of new drug targets and contributes to finding new possibilities for diagnosis and treatment.

### **BIOMEDICAL ENGINEERING**

By applying scientific, engineering and technological principles as well as design concepts to the areas of medicine and biology, the field of biomedical engineering, sciences and technologies will spearhead new innovations with diagnostic and therapeutic applications.

### **ENERGY**

### **POWER GENERATION**

Affordable and sustainable power generation requires a comprehensive range of new technologies for renewable solutions such as hydropower, wind power, geothermal power, biomass and solar power, as well as their integration.



### **STORAGE**

This research area focuses on energy storage systems (chemical, hydrogen) and battery management systems for mobile and stationary applications. The aim is to optimize the full operating temperature range with endurance tests in climatic simulation chambers.



### **TRANSPORTATION**

Issues related to transport and mobility are one of our main focus areas. In this field, through the establishment of partnerships with industry and public authorities, we enable technology transfer and lead interdisciplinary research projects.



### **GREEN ENERGY**

This focus area involves total energy solutions (from generator to user) with the objective of longterm sustainability and reliability of all types of renewable energy. Combined with smart energy harvesting, intelligent metering and efficient distribution, the goal will be that future total energy solutions will have no negative impact on humans, animals, climate and nature.



### **ENERGY EFFICIENCY**

Systematic optimization of energy storage, distribution and use, as well as development of alternative solutions and energy systems.



### **SMART BUILDING**

The architectural decisions of today must not limit the opportunities of future generations. Therefore, energy efficiency over the entire life cycle of a building is the most important goal of sustainable architecture. Smart buildings are thus a prerequisite for smart living.



### **DECOMMISSIONING OF NPP**

Development and optimization of decommissioning strategies, optimization of applicable decommissioning technologies, further development of decontamination and dismantling technologies, waste management and clearance measurements.

Switzerland Innovation Switzerland Innovation

### **INDUSTRY 4.0**



### 3D TECHNOLOGIES

This research area covers 3D imaging, scanning and modelling, 3D information in general and looks into the development, treatment, modification and conversion of 3D information from scanners/cameras so that it can be reproduced with a 3D printer (additive manufacturing).



### **ROBOTICS**

Development, production and testing of robots and computer systems for system monitoring with the aim of improving quality of life and productivity. This area includes mechanical engineering, electrical engineering and computer science for sensory feedback and information processing.



### ADDITIVE MANUFACTURING

Additive manufacturing is the direct digital fabrication of plastic, metal and biomaterial products and components, generated layer by layer using laser beams, electron beams, thermal material deposits, laser cladding or other processes (bioreactor).



### **SENSORS**

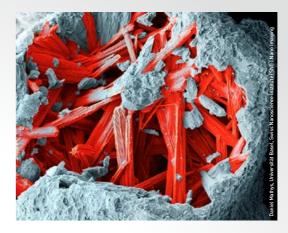
The current revolution in computer-integrated manufacturing has been made possible by advanced sensor technology, one of our fields of excellence. Today, manufacturing process sensors are often the limiting capability that dictates the best possible performance and reliability of products.





### **ANALYTICS**

Using large research facilities and X-ray-based analytical methods in materials science and technology to examine matter for new applications in different industries, including semiconductor technology, chemistry, pharmacology and biology.



### **ADVANCED MATERIALS**

Determining nanostructures down to the molecular and atomic scale and their functionalities in order to develop new, resistant and environmentally safe materials that will provide the foundation for cutting-edge products.



### EXTREME ENVIRONMENTS

Human beings have a natural desire to explore the unknown. Therefore, we develop new, essential technologies to enable them to better face the challenges involved in the exploration of environments with extremely high or low temperatures, high or low oxygen levels, high levels of radiation, no water, etc., and in doing so produce efficient and innovative materials.



### **MICROTECHNOLOGY**

Switzerland has demonstrated its microtechnology expertise in all areas of industry (watchmaking, electronics, the automobile industry, the spatial industry, telecommunications, etc.). Microtechnology is deeply rooted in Switzerland's history, which has developed continuously through innovation.



### **AUTOMATION**

Automation in the context of industry 4.0 includes new business models, self-organized logistics, product engineering, horizontally and vertically integrated digital manufacturing processes, maintenance prediction, data analytics, product support and lifetime support.



### **LASERS**

This area involves research into applications for femtosecond lasers, frequency-stabilized fiber lasers, X-ray lasers, high-power fiber lasers and UV lasers. It includes nonlinear THz science, communication systems and spectral domain OCT systems. High-resolution and precision ablative machining can be carried out using lasers and focused ion beam (FIB) systems.



### **RADIOGRAPHY**

The use of imaging techniques that use sources such as X-rays, radioisotope sources and neutrons to view the internal structure of an object of interest, for example for research and nondestructive testing.



### SURFACE TECHNOLOGY

Very large surfaces (3 square meters) can be microstructured in the laser center with a pulsed UV laser. Thin films and coatings (plasma deposition, oxide films) are used to design the properties of surfaces (e.g. corrosion management). Magnetron sputter deposition is used to fabricate magnetic thin film systems.

## INFORMATION AND COMMUNICATION TECHNOLOGY



### **COMPUTER SCIENCE**

Research areas in this field include machine learning, system security, pervasive and parallel computing, cyberphysical systems, embedded computing and computer graphics, programming language design, software performance and program verification and testing.



### **SECURITY**

Development of new solutions and advanced materials (e.g. for polymer nanotechnology) in order to increase the security of devices, documents and solutions and develop software for digital data protection.



### **SMART DATA**

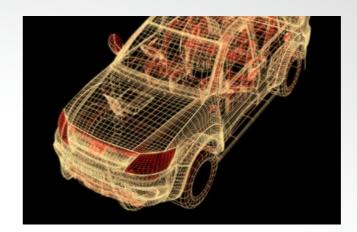
Our world is full of data. The key is to turn big data, such as data from cell phones, tablets, smart devices, social networks, Web services, etc., into smart data. In doing so, we can effectively develop and optimize automated solutions that help us to improve business performance and solve social and industrial problems.



### **NETWORKS**

Communication networks incorporate telecommunications infrastructure, wireless networks, cableand fiber-based networks, next-generation networks for the Internet of things and the standardization of networks.





### **AUTOMOTIVE**

Automotive involves construction and calculations in vehicle body construction, vehicle assembly, mechanical engineering, the development of vehicle components, component homologation and safety approvals. In the dynamic test center, static and dynamic tests of vehicles are performed.



### **SPACE**

Research is carried out into innovations in the area of aerospace applications, including fairings, structures, ground support equipment, electronics, sensors, tiny but extremely reliable mechanisms and atomic clocks. Innovation potential is increased through the cooperation with the Swiss Space Center.



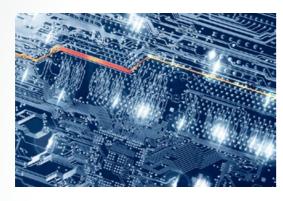
### **AVIONICS**

Avionics involves all onboard electrical and electronic devices that are required to operate an airplane. These include navigation and communication systems, autopilot, flight monitoring devices and radar systems.



### **SOCIAL MEDIA**

Research and developments in the fields of big data, social media semantic analysis, machine learning and predictive analytics improve the quality of the research work and create clear added value for stakeholders.



### ARTIFICIAL INTELLIGENCE

Ever-increasing quantities of data need to be collected, distributed, stored, searched, analyzed and visualized – the term big data refers not only to research into ways of managing the volume of data, but also to research on finding new methods for compressing, processing, cataloging and archiving it.



### **CLOUD COMPUTING**

We focus on maximizing the effectiveness of shared computer resources, while minimizing insecure interfaces and APIs, data loss and leakage and hardware failure. The key here is to enable resources to be used by multiple users and dynamically reallocated according to demand, while keeping access simple and secure.



### **DRIVE TECHNOLOGY**

This innovation focus area involves the development of electronic drive systems for industrial machines, electric and hybrid vehicles, trains and public transportation. Stationary motors are optimized for efficiency and reliability and electronically controlled gears are adapted.



### **PUBLIC TRANSPORTATION**

Smart vehicles, driverless buses and cooperative systems in support of networked automated driving – tomorrow's mobility will be a mix of public transportation and shared mobility. Acceptance of these new developments will be key. A wide range of these technologies have been developed and tested in our research centers.

### **ENABLING TECHNOLOGIES**



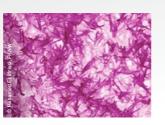
### **SMART LIVING**

Improving quality of life by transforming home, workplace, transportation and energy infrastructure into smart environments, both on a technical and social level, and thereby creating innovative living environments that enhance well-being.



## ESSENTIAL TECHNOLOGIES

Some technologies have the potential to sustainably improve millions of lives in the world's poorest regions. These technologies can help meet people's most fundamental needs, while creating new markets that also benefit the inhabitants of these regions.



### **NANOTECHNOLOGY**

Cutting-edge technologies in microfabrication and nanofabrication; development of new synthetic materials, functional surfaces and nanolithographic processes.



### **ACCELERATOR TECHNOLOGY**

Development of components, systems and processes for scientific and industrial applications in accelerator technologies, in particular for pilot and large-scale appliances such as large research facilities; enabling research and development in numerous fields including high-frequency technology, fast electronics, magnets and specialty engineering; high precision mechanics, detectors and control systems.



### OPTICS

Research on and development of new optical technologies and the application of optical methods and infrastructure to perform multidisciplinary research that enables new product development.

# ONE INNOVATION PARK - FIVE SITES





## AN INDEPENDENT BIOMEDICAL AND BIOTECH RESEARCH PLAYGROUND FOR ACADEMIC, PRECOMPETITIVE AND SPIN-OUT R&D COLLABORATION

### **Profile**

Switzerland Innovation Park Basel Area is an independent catalyst for R&D in biotech and biomedical engineering, sciences and technologies (BEST). We help spearhead innovation at the nexus of life sciences, IT and materials science, as well as biotech and medtech. Our facilities provide plug-and-play labs and office space located at the heart of Europe's leading life sciences cluster.

It is only a short journey from the vibrant cultural center of Basel, Switzerland. EuroAirport Basel-Mulhouse-Freiburg is within 15 minutes' drive and connects to all major European cities and hubs. It is our mission to nurture a collaborative community and to build strong partnerships between resident groups and our network of partners.

### Featured Residents

Current residents include the following projects and companies:

- Department of Biomedical Engineering, University of Basel – conducting research in the fields of medical imaging, materials science and biotechnological tissue engineering, orthopedics and biomechanics
- Advanced Osteotomy Tools a winner of the CTI Swiss Medtech Award 2015 that is reinventing bone surgery (osteotomy) using laser, robotics and navigation systems
- mininavident a winner of the Swiss Technology
   Award 2015 that is developing a miniaturized, handheld navigation system for dental implants
- MTIP MedTech Innovation Partners an early-stage investor focusing on health technologies that is delivering access to business building expertise

### **Universities and Research Partners**

These renowned academic institutions are ready to engage with our residents:

- University of Basel
- University of Applied Sciences and Arts Northwestern Switzerland
- Department of Biosystems Science and Engineering (D-BSSE) of ETH Zurich
- Swiss Tropical and Public Health Institute
- University Hospital Basel
- Swiss Institute for Computer Assisted Surgery

### Commercial Partners

Residents benefit from our strong network within the vibrant local life sciences ecosystem, including companies such as Actelion, Novartis, Roche and numerous SMEs – all within minutes from our facilities.

### Services

Our team provides incubation and acceleration services that go beyond expert support with permits, compliance, and environmental, health and safety requirements. By cultivating a game-changing flow of insights from one scientist to the next, from lab to office and from our network of experts to our residents, we actively help jump-start interaction and initiate new connections. We are also in the process of creating an endowment fund to offer financial support to R&D projects that are out of the scope of for-profit investors.

### Infrastructure

We offer plug-and-play labs built to pharma specifications and offices that cater to the needs of innovation teams. Residents may occupy individual, private spaces or share coworking labs and desks according to their changing requirements. Our facilities include:

- Turnkey, 24/7, private or shared laboratories and offices
- Utilities (heating, cooling, electricity, water and wastewater disposal, real estate taxes)
- Parking

### **Buildings and spaces**

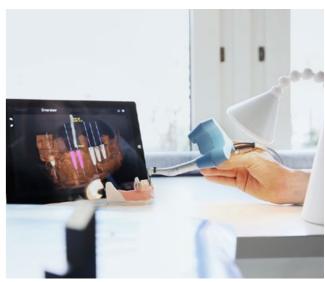
Our state-of-the-art facilities include 5,000 square meters of private and shared labs and R&D spaces. We are in the process of planning a major expansion to accommodate a growing community of residents. By the end of 2019, Switzerland Innovation Park Basel Area aims to complete the building of additional state-of-the-art facilities encompassing an additional 20,000 to 25,000 square meters of independent R&D space, a dedicated medtech building and shared labs in the close vicinity of our current location.

### Surfaces

from 2015	$5,000 \; \text{m}^2$ lab and shared lab space
from 2016	additional 3,500 m² office space
from 2017	additional 1,500 m² medtech space
from 2019	additional 25,000 m² lab and office space



R&D playground for academic, precompetitive and spin-out research groups



Innovation at the nexus of life sciences, IT, materials science, biotech and medtech

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A UNIQUE INNOVATION CENTER IN CLOSE PROXIMITY TO THE PAUL SCHERRER INSTITUTE (PSI) AND ITS UNIQUE COMPLEX FOR ACCELERATOR-BASED LARGE RESEARCH FACILITIES.

### Profile

Located in close proximity to the Paul Scherrer Institute (PSI) and its unique complex of large research facilities, Switzerland Innovation Park innovaare aims to become a globally recognized center where innovations in the fields of accelerator technology, advanced materials and processes, human health and energy are promoted and rapidly transformed into marketable products and solutions.

Our goal is to create a lively, innovative community, where new and relocating companies will find exceptional conditions for their development and to facilitate the exchange between research and industry.

### **Featured Residents**

Park innovaare offers an outstanding location with excellent facilities and a focused support program for technology- and research-driven companies. The following companies have already taken up this offer:

- Advanced Accelerator Technologies AG, which offers components and complete accelerator systems
- leadXpro AG, which conducts research into new drug targets utilizing the large research facilities of the PSI
- nomoko AG, which develops an extremely high-resolution camera for industrial applications

### Universities and Research Partners

Switzerland Innovation Park innovaare is part of an outstanding network of leading universities, research institutes and training institutes. The Paul Scherrer Institute (PSI) and the University of Applied Sciences and Arts Northwestern Switzerland (FHNW) form the core of our university network.

Park innovaare's focus areas are defined by its partnership with the PSI, a leading expert in particle accelerator technology with around 2,000 experts (scientists and engineers) and the largest research center for natural and engineering sciences within Switzerland. Their know-how is enriched through cooperation with the following highly specialized research institutions:

- Swiss Nanoscience Institute (SNI)
- Institute of Polymer Nanotechnology (INKA)
- Plastics Training and Technology Center (KATZ)
- Swiss Competence Center for Energy Research (SCCER)
- The Institute of Biomass and Resource Efficiency (IBRE)

Numerous projects have already been realized through the cooperation with these and further universities, such as the Federal Institute of Technology (ETH) Zurich and the University of Basel.

### Commercial Partners

innovAARE AG, the operating company of Park innovaare has a strong shareholder base and enjoys intensive support from international companies and innovative SMEs. Its aim is to bring science, research and industry together in the interests of technology transfer. By combining cutting-edge research and entrepreneurial innovation, it aims to promote strategic competitive advantages and innovations.

### Services

Park innovaare offers a broad range of research services, for example:

- Assistance in collaborating with the Paul Scherrer Institute (PSI), the University of Applied Sciences and Arts Northwestern Switzerland (FHNW) and other research institutions
- Assistance in applying for Cantonal and Federal research funding and business loans for resident companies or companies planning to relocate to Switzerland Innovation Park innovaare
- Cooperation with the Cantonal economic promotion agency Aargau Services, who provide administrative support for companies relocating to the region
- Developing business cases and concepts and creating links between companies and research to help develop technology and innovation platforms

Switzerland Innovation Park innovaare is a single point of contact and a service-oriented mediator between companies, organizations and financing institutes.

### Infrastructure

Park innovaare is closely connected to the PSI's globally unique set of technological infrastructures for research and application. The Swiss Spallation Neutron Source (SINQ), the Swiss Light Source (SLS) and the Swiss Muon Source (S $\mu$ S), as well as the X-ray free-electron laser SwissFEL, which is to take up operation shortly, are the large research facilities that offer an exceptional insight into the composition and the structure of different substances and materials. In addition, the PSI operates the world's first and Switzerland's only proton therapy center (Gantry 1 and 2, as well as Gantry 3 in the near future) specializing on cancer treatment.

### **Buildings and spaces**

Newly built and in operation since September 2015, the deliveryLAB houses Park innovaare's high-quality offices and communication spaces covering 400 square meters, and offers businesses and research groups the opportunity to reside in close proximity to the Paul Scherrer Institute (PSI). It accommodates a number of innovative, research-oriented companies.

The first development phase will see the construction of buildings with 30,000 square meters of floor space. Park innovaare's new campus will be available for occupancy in 2019. The space will be suitable for wet chemistry, biology and physical-technical laboratories, as well as for offices.

Surface in m <sup>2</sup>	Available in Q1/2016	2017	2019
Offices	600	700	12,000
Labors	-	450	8,000
Clean rooms	-	_	1,200
Production halls	-	Available on request	8,000
Building ground as	of now: 60,000 m	2	





SwissFEL, the new large research facility

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# YOUR FUTURE LOCATION IN SWITZERLAND – IN CLOSE PROXIMITY TO LEADING UNIVERSITIES AND THE CITY WITH THE HIGHEST STANDARD OF LIVING IN EUROPE: ZURICH. SWITZERLAND INNOVATION PARK ZURICH OPENS IN 2017.

### Profile

Innovations secure your company's entry into the markets of the future. Switzerland Innovation Park Zurich provides the ideal conditions for academic and industrial researchers to achieve success in international markets more quickly. It offers physical proximity, the opportunity for interdisciplinary communication and a creative environment. The findings from various different research areas and the practical experience of the companies accelerate the development of new, marketable products, services and technologies. And this all takes place at a site that is only 15 minutes from the international airport and the city center of Zurich.

### **Featured Residents**

Switzerland Innovation Park Zurich offers space for companies of any size, from start-ups to SMEs to large companies. The space to develop ideas is crucial for innovations, and any form of collaboration is conceivable here.

### **Universities and Research Partners**

The universities and universities of applied sciences in and around Zurich have an international reputation:

- Federal Institute of Technology (ETH) Zurich
- University of Zurich
- Zurich University of Applied Sciences (ZHAW)
- Zurich University of the Arts (ZHdK)
- University of Applied Sciences in Business Administration Zurich (HWZ)
- Further universities of applied sciences in the Zurich region

Our research partners include companies from the cluster network of the Canton of Zurich from the fields of ICT, finance, life sciences, nanotechnology, cleantech, aerospace, creative industries and tourism.

### **Commercial Partners**

In close proximity are incubators and Technoparks that have a national and, in some cases, international reach, such as the Technoparks in Zurich and Winterthur, glaTec, Impact Hub, the Gottlieb Duttweiler Institute (GDI), the Swiss Federal Institute for Forest, Snow and Landscape Research (WSL), Bio-Technopark Schlieren, University Hospital Zurich, Strickhof and many more.

### **Current Construction Progress**

The site is being developed in stages. A layout plan for 38 hectares has been drawn up. When Switzerland Innovation Park Zurich opens, approximately 6,000 square meters around the perimeter of the park, as well temporary buildings for facilities such as offices, workshops, laboratories and a test hall, will be available. Building plots can then be assigned with a building lease setup.

### Services

The organizing institution ensures that services such as facility management and security are provided on site.

### Infrastructure

Once completed, the site will be home to urban buildings that enable people to live and work at one location. These will include cafés, restaurants, conference facilities, a hotel, shops, a library, a day-care center and sports facilities.

### **Buildings and spaces**

Around 70 hectares of land is reserved for Switzerland Innovation Park Zurich at the airfield in Dübendorf. Planning documents for a first stage incorporating 38 hectares and a total floor space of 410,000 square meters have been prepared. During the start-up phase, around 6,000 square meters of space will be available in existing buildings.



Structure plan for the first phase of 38 hectares.



View of Mount Säntis: the site is characterized by the wealth of space it offers.

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SWITZERLAND INNOVATION PARK BIEL/BIENNE CARRIES OUT APPLICATION-ORIENTED RESEARCH AND INNOVATION IN THE AREAS OF INDUSTRY 4.0, 3D PRODUCTION TECHNOLOGIES, ENERGY, MOBILITY AND MEDTECH.

### **Profile**

A quarter of all industrial jobs in Switzerland are located in the greater Biel/Bienne region and focus on the area of research. Research partners with distinct expertise are active in each focus area. The time it takes for an idea to become a marketable product is significantly reduced using the additional services, coaching and business expertise on offer.

Switzerland Innovation Park Biel/Bienne supports and encourages business and innovation teams. It provides infrastructure (space and laboratories), research services and services for SMEs and start-ups and helps them to develop and create a marketable product.

### Featured Residents

The possibilities for growth and innovation attract companies of all sizes, from start-ups to international companies. Their work ranges from medical applications and programming to industry 4.0 applications and cancer treatment. The following companies are already residents:

- Etel SA
- BKW Energie AG
- Axiamo GmbH
- Bozzio AG
- evolaris
- IPS Biopharma AG
- SwiSS-9 GmbH
- ESPI
- NGFT Next Generation Flight Training GmbH
- Synopsys GmbH

### **Universities and Research Partners**

Switzerland Innovation Park Biel/Bienne is connected with universities from all over the country. It is part of a vast network of open collaboration with the goal of accelerating research in a way that benefits companies and the sciences. The universities we work with the most are:

- University of Bern
- Bern University of Applied Sciences (BFH)

Our mission is to connect great minds. It is therefore not surprising that our research partners are some of the most accomplished institutes in Switzerland:

- University of Bern, ARTORG Center for Biomedical Engineering Research
- University of Bern, Institute of Applied Physics (IAP)
- CSEM, a private applied research and development center
- Empa in Thun
- Insel hospital, Bern

### **Commercial Partners**

Great companies have grown in Biel/Bienne for generations. We maintain that tradition and expand our partnerships beyond regional and national borders:

- Akros AG
- BKW Energie AG
- Bosch AG
- GF Machining Solutions AG
- RUAG
- Rollomatic SA
- Balluff Sensortechnik AG
- Quickline AG
- Berner Kantonalbank





### Services

- 3D printing process: This process is also known as generative or additive manufacturing. As a product is being produced, it is subject to physical or chemical hardening or melting processes. Plastics and various metal alloys are used at Switzerland Innovation Park Biel/Bienne in order to produce durable parts for research and development and industry.
- FabLab: The FabLab is an open workshop that gives our customers access to production equipment and modern industrial production processes. It is intended and designed for the production of single pieces and is part of the prototype service.

### Infrastructure

We create the space to drive innovative ideas forward. This includes a coworking space designed specifically for start-ups. In the next three years, we will have around 3,000 square meters of free office and laboratory workspace that can be rented by SMEs. From 2019, there will be around 15,000 square meters of new workspace available in a new building. As of 2019, there will be several clean rooms of classes 5 and 7.

### **Buildings and spaces**

Surface in m <sup>2</sup>	Year 2015 – 1st Building	Year 2019 – 2 <sup>nd</sup> building
Offices	1,700	8,500
Coworking space	250	500
Laboratories	600	2,150
Smart Factory Lab	500	1,000
Clean rooms	60	350
Public areas	400	2,000
Total working area	3,500	14,500

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# THE PRODUCTIVE SCIENTIFIC ENVIRONMENT OF SWITZERLAND INNOVATION PARK NETWORK WEST EPFL OFFERS THE PERFECT PLATFORM FOR DISRUPTIVE INNOVATION.

### **Profile**

Switzerland Innovation Park Network West EPFL brings together the prestigious EPFL and the specialized sites of the French-speaking cantons. The EPFL is one of the world's leading universities, ranking among the top 5 engineering and technology universities in Europe and the top 20 worldwide. Switzerland Innovation Park Network West EPFL offers domestic and foreign companies the best locations on its campus.

With first-class accessibility to research teams, innovation cells and the cutting-edge laboratories of the six innovation centers that make up Switzerland Innovation Park Network West EPFL, ideas are transformed into marketable products. Scientific collaboration enables R&D teams of corporations and start-ups to create the future with new innovations.

By uniting the forces at the forefront of scientific and technological innovation, Switzerland Innovation Park Network West EPFL aims to secure and develop private research and development investment for the disruptive innovation that will create the game-changing products of the near future.

### Featured Residents

The strategic location within the EPFL campus at the forefront of global research attracts many highly innovative businesses. With unparalleled exposure to a wide range of new technologies and access to the knowledge of some of the leading experts worldwide, disruptive innovation is a reality.

Research teams and innovation cells work together in an environment that inspires innovation and is focused on successfully launching new products on the global market. Whether within their own fields or in complementary fields of expertise, easy access to advanced research and interdisciplinary collaboration speed up the realization of innovation and development goals for all residents.

These are some of the corporate development teams located at Switzerland Innovation Park Network West EPFL:

- Nestlé
- Logitech
- Axa
- Intel
- Siemens
- Merck
- ViaSat
- Debiopharm
- Cisco
- elca
- Bühler
- Credit Suisse
- Texas Instruments
- Peugeot Citroën

### **Universities and Research Partners**

The vast network of partners of Switzerland Innovation Park Network West EPFL includes several universities and universities of applied science, ensuring easy access to first-class research and interdisciplinary collaboration

- The Federal Institute of Technology Lausanne (EPFL)
- The University of Lausanne (UNIL)
- The University of Geneva (UNIGE)
- The University of Fribourg
- The University of Neuchâtel (UniNE)
- The University Hospital of Lausanne (CHUV)
- The University Hospital of Geneva (HUG)
- The University of Applied Sciences
- and Arts of Western Switzerland (HES-SO)

   The School of Management
- The School of Management and Engineering Vaud (HEIG-VD)

Renowned research partners of internationally respected research centers offer an inspiring and unique atmosphere, leading to interdisciplinary collaborations that contribute to unexpected innovations.

- The ISREC Foundation
- Ludwig Cancer Research
- The Bertarelli Foundation
- The Wyss Center
- The Swiss Institute of Bioinformatics (SIB)
- CSEM

### Services

Multiple services have been specifically designed for the purpose of ensuring the full potential and operational effectiveness of innovation cells at Switzerland Innovation Park Network West EPFL, for example:

 Interdisciplinary research centers enable residents to network with the right contacts, increasing the potential of disruptive innovation.

- Skilled and specialized technology transfer staff help with guidance and provide the appropriate tools to capitalize on the potential of over 2,500 master's theses per year, explore the path toward products and minimize costs and risks during the intellectual property protection process.
- Interesting funding sources such as EU programs are easily identified with the help of skilled accounting staff.
- Start-up scouts help to identify the most promising start-ups and EPFL spin-offs.
- Disruptive innovation is accelerated with the help of dedicated staff, who assist companies in moving forward by tapping into student crowd intelligence or by launching open idea challenges and brainstorming sessions.
- Being part of the inner circle at Switzerland Innovation Park Network West EPFL offers access to manager lunches and other C-level corporate events that allow networking with the right people, better benchmarking and unexpected collaborations.
- Through guided access to other companies working in similar areas inside and outside the innovation network, innovation cells can increase their reach and create collaboration synergies.

### Infrastructure

Located in the French-speaking part of Switzerland, with close access to international airports in Geneva and Basel, Switzerland Innovation Park Network West EPFL has a designated area for residents of over 100,000 m² and offers laboratories, offices, coworking spaces and everything that is essential for innovation and research. The EPFL Innovation Park in Lausanne has an available area of 50,000 square meters, while the other sites offer 10,000 square meters each.





### Switzerland Innovation Park Network West EPFL - six centers

## Switzerland Innovation Park Network West EPFL Biopôle, Lausanne

Biopôle and its partners – the University of Lausanne (UNIL), the University Hospital of Lausanne (CHUV), the University of Applied Sciences and Arts of Western Switzerland (HES-SO), the ISREC Foundation and Ludwig Cancer Research – are dedicated to life sciences. The main focus areas are personalized medicine, neuroscience, immunology and oncology.

## Switzerland Innovation Park Network West EPFL Bluefactory, Fribourg

In the center of Fribourg, built on an ancient brewery site, Bluefactory and its partners – HES-SO and the University of Fribourg – focus on the areas of smart building, sustainable architecture and smart living.

## Switzerland Innovation Park Network West EPFL Campus Biotech, Geneva

Located in Geneva, Campus Biotech is at the forefront of global research in life sciences, neuroscience, personalized medicine, bioinformatics, affective sciences and global health. Campus Biotech hosts many academic and industrial partners, such as the University of Geneva (UNIGE), the University Hospital of Geneva (HUG), the Bertarelli Foundation, the Wyss Center, HES-SO and the Swiss Institute of Bioinformatics (SIB).

### Switzerland Innovation Park Network West EPFL Energypolis, Sion

Situated in the Swiss Alps, Energypolis and its partner HES-SO focus on energy management, including energy for industry, smart grids, green chemistry, resources and water management and the dynamics of turbines.

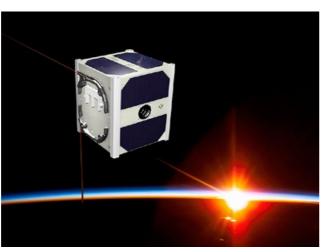
## Switzerland Innovation Park Network West EPFL EPFL Innovation Park, Lausanne

Located on the campus of one of Europe's most cosmopolitan technical universities, the EPFL Innovation Park in Lausanne and its partners – UNIL, CHUV and HES-SO – are active in the areas of advanced manufacturing, computer science, extreme environments and energy management.

## Switzerland Innovation Park Network West EPFL Microcity, Neuchâtel

Microcity, the biggest microtechnology competence center in Europe, is located in the heart of Switzerland's "Watch Valley". Together with CSEM and the University of Neuchâtel (UniNE), Microcity is active in the fields of advanced manufacturing, energy management, 3D printing, microtechnology, additive manufacturing, sensors and the future of photovoltaics.











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