





# **Campus** and **Research Park** Switzerland



Schweizerische Eidgenossenschaft Confédération suisse Confederazione Svizzera Confederaziun svizra

Swiss Confederation

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# **Executive Summary**

Switzerland is a hub for excellent education and science. It has outstanding universities with numerous programs, many world-class public research institutions, and a thriving private sector that conducts its own cutting-edge research. Studying in Switzerland is relatively inexpensive since education—including higher education—is to a large extent publicly funded. Whereas undergraduate programs are usually taught in a national language (German, French or Italian), master's degree and Ph.D. programs are increasingly offered in English.

Switzerland has twelve public universities offering a wide range of first-rate educational opportunities to national and international students. ETH Zurich and EPFL, the two federal institutes of technology, are world leaders in science and engineering, education and research. The ten cantonal (state) universities not only provide comprehensive courses in diverse fields of study, but also conduct cutting-edge research. The research of scientists in Switzerland is highly recognized for its quality, i.e., receiving the largest number of citations per publication in the world. So, research-based master's and Ph.D. degrees from a Swiss university offer a good starting point for an academic career. The eight universities of applied sciences and the fifteen universities of teacher education provide excellent programs based on professional needs and on applied research. Moreover, Switzerland is home to several outstanding public and private institutes.

The "Swiss Research Park" benefits from considerable private and public funding for research and development (R&D). Switzerland's leading public institution for funding scientific research is the Swiss National Science Foundation (SNSF), which has also initiated several National Centers of Competence in Research (NCCR) in various academic fields. Substantial funding also goes directly to the Swiss universities and to the many excellent public research institutes. In addition, Switzerland hosts the European Organization for Nuclear Research (CERN). Private companies, including both start-ups and large multinational companies, also play a fundamental role, funding about three-quarters of research conducted in Switzerland. Switzerland has one of the highest numbers of Nobel laureates per capita worldwide and ranks among the top countries for patents.

The Swiss economy is highly competitive and plays a remarkable role internationally. Its most vibrant and important industries are financial services, the pharmaceutical and chemical sectors, and the machinery and engineering sectors. Many well-known international companies and organizations have chosen Switzerland as their European headquarters. Even though Switzerland is not a member of the European Union, it is very well integrated through a series of bilateral agreements. Employment opportunities are plentiful, and the quality of life is among the best in the world. Excellent infrastructure, security, and political and economic stability are all further reasons why Switzerland is a great place to study and conduct research.

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# Chapter 1 Portrait Switzerland

Switzerland is an excellent location for living, studying and working. Its cultural variety, beautiful landscape and innovative environment offer first-class surroundings for both your well-being and career advancement. Certainly, chocolate and mountains will be part of your experience, but you will quickly discover that the country's international setting offers numerous high-quality opportunities for studying and researching.

# 1.1 A diverse and multicultural country in the heart of Europe

Switzerland is located in the heart of Europe. This geographic position and the Swiss federal structure, which features substantial regional autonomy within a unified government, have enabled the country to become a meeting point of cultures and languages. The country has four official languages—German, French, Italian



and Romansh. In addition, English is widely spoken and increasingly used as the primary language of business and research. Thanks to these factors, English-language speakers find it easy to settle in Switzerland. It is a highly diverse country with over 20% foreigners, who are even more prominent in the Swiss workforce, where they make up 26%. Nearly two-thirds or 64% of these foreign workers are nationals of a European Union (EU) country (2007 data). Switzerland is also very well integrated into the EU through a series of bilateral agreements.

# 1.2 An outstanding quality of life

Very few places in the world can offer the quality of life found in Switzerland. It is a clean and safe country with a gorgeous landscape that is inviting for many outdoor activities. Since the Swiss public administration and legal system are well organized, the country has a low crime rate and provides excellent personal security to its residents and visitors. An efficient, reliable infrastructure allows people to spend less time commuting and gives them more time to fully enjoy their leisure activities. The education and health care systems are top-notch, roads are well maintained, and the public transportation network is

# Global Ranking of Cities with a High Quality of Life

<u>City</u>	<u>Ranking</u>
Zurich	1
Geneva	2
Vienna	2
Vancouver	4
Auckland	5
Dusseldorf	6
Frankfurt	7
Munich	7
Bern	9
Sydney	10

Source: Mercer's 2008 Quality of Living survey

fort and convenience.



Besides working and studying, Switzerland's amazing natural and cultural landscape offers the ideal setting for leisure time. The picturesque mountains and lakes provide year-round activities for nature lovers and sports enthusiasts. The towns and villages have numerous sports clubs, including cycling, skiing, snowboarding, and sailing, among many others. When it comes to cultural activities, Switzerland hosts major events such as Montreux's jazz festival, Locarno's film festival and many other seasonal events.

# 1.3 A highly competitive and international business environment

Switzerland offers a liberal and highly competitive business environment. Among a total of 131 surveyed countries, the Geneva-based World Economic Forum ranked Switzerland as number two after the U.S. in its *Global Competitiveness Report 2007-2008*. Switzerland's excellent ranking reflects a world-class capacity for innovation, combined with a highly sophisticated business culture. The country has a well-developed infrastructure for scientific research, with close collaboration between the leading research centers and industry. Companies spend generously on R&D, and intellectual property protection is strong, helping to spur high levels of technologi-



cal innovation. Business activity in the country benefits from respect for the law, an efficiently working judicial system, and high levels of transparency and accountability within public institutions. Flexible labor markets and excellent infrastructure also meet the demands of the private sector.

Swiss business has an international profile: among world-renowned companies are Nestlé in the food industry, UBS and Credit Suisse in banking, Swatch in the watch industry, and Novartis and Roche in the pharmaceutical sector. In addition, about 6,500 foreign companies strongly contribute to economic growth and wealth creation. In 2006, foreign companies employed about 350,000 people, constituting 9% of the total workforce in Switzerland (Swiss National Bank). Numerous international organizations such as the European headquarters of the United Nations and the International Committee of the Red Cross, are based in Geneva.

#### Currencies and Exchange rates: 1.00 CHF = 0.96 U.S. Dollar = 0.62 Euro; June 13, 2008.

#### 1.4 A dynamic and innovative high-tech sector

The Swiss economy focuses on high tech, quality work and skilled workers and strongly depends on foreign trade. Switzerland is the third largest supplier and second largest customer of the EU: 62% of Swiss exports go to the EU and 79% of imports originate from the EU. The most important exported goods are chemicals, machinery and electronics, as well as tools and watches. Leading companies in engineering, machinery, pharmaceuticals, biotechnology, medical technology, and computer sciences have headquarters in Switzerland. As representatives of the high-tech sector, the engineering, electrical and metal industries are the largest industrial employers, with approximately 318,000 employees. They contribute just under 40% of the goods exported from Switzerland, valued at CHF 70 billion (2007, Swissmem). Over 500 medical technology companies employ a workforce of 40,000 people (Eucomed). They also invest almost CHF 525 million annually in



R&D and export goods worth nearly CHF 5.25 billion per year (Eucomed). Switzerland is a first-class location for life sciences companies and is home to one of the world's leading biotechnology clusters, with 148 biotech companies and 72 suppliers. In 2007, the Swiss biotech industry generated a turnover of more than CHF 7 billion and had a workforce of over 14,700 people.

The country has an outstanding scientific reputation and ranks among the first in innovation and entrepreneurship. Growth and diversification characterize the Swiss high-tech sector. Switzerland has also become

an excellent location for micro- and nanotechnologies. It provides highly supportive conditions for innovation and offers a dynamic environment for knowledge creation. With an annual overall R&D expenditure of CHF 13.1 billion in 2004, corresponding to 2.9% of the Gross Domestic Product (GDP), the country has one of the world's highest levels of R&D expenditure. Combined with strong protection for intellectual property, Switzerland takes advantage of its high investments in R&D and ranks second after Sweden in the Innovation index of the *European Innovation Scoreboard, 2007*.



# **1.5** An excellent financial center and attractive location for foreign investors

With its value creation, substantial employment, and tax revenues, the financial sector is an important pillar of the Swiss economy. The financial sector, including banking and insurance, contributes about 14% of GDP; banking alone, with over 330 banks, generates about 9% of GDP (2008, Swiss National Bank). Switzerland



is a preferred international financial center. It provides long-term, stable conditions and an efficient infrastructure.

A market-driven environment, stable government, highly skilled workforce and well-organized and transparent public services are all crucial factors in attracting foreign direct investments. By European standards, taxation in Switzerland is investor-friendly and employment-protection laws are flexible. At first glance, Swiss labor costs may seem relatively high compared with neighboring countries, but due to the high productivity and the long working hours, Switzerland remains a very cost-effective business location. Therefore it is not surprising that Switzerland is a favorite destination for global and regional headquarters and R&D facilities. Good examples are Google, Hitachi Diagnostic and eBay.



#### 1.6 The most greenhouse efficient economy in the developed world



Switzerland is number one in the world for environmental performance, according to a study conducted by a team of experts from Yale and Columbia Universities. The 2008 Environmental Performance Index (EPI) ranks 149 countries according to 25 indicators within the broad categories of environmental health, air pollution, water resources, biodiversity and habitat, productive natural resources, and climate change.

The report's lead author, Dr. Daniel Esty, called Switzerland, "the most greenhouse gas-efficient economy in the developed world." Switzerland's high score of 95.5

out of 100 came from its use of hydroelectric power and its highly efficient and widely used public transportation system. Switzerland achieved a perfect score in a number of indicators, including sanitation, drinking water and habitat protection.



**Environmental Performance Index 2008** 

Source: Environmental Performance Index 2008, Country Score



# Chapter 2 Campus Switzerland

Swiss higher education is the key factor in boosting innovation, research, and a skilled workforce. Education creates knowledge, economic growth, and outstanding benefits for society. A special factor in the success of Swiss education is its dual system. At the age of 15 or 16, about two-thirds of young adults in Switzerland enter a vocational education and training program (apprenticeship) that provides a solid professional basis for lifelong learning and opens up a wealth of job prospects. With good academic performance in the apprenticeship and successful completion of the professional baccalaureate, students receive free access to the universities of applied sciences. This vocational track offers an alternative to the classical track of high school and university and allows greater opportunities for young people to pursue higher education in various ways.



#### Annual Expenditure on Educational Institutions per Student, 2004

Source: Education at a Glance 2007, OECD Indicators (Note: Japan, incl. R&D)

# 10 Campus and Research Park Switzerland

The country is convinced of education's high long-term importance and considers it as the essential pillar of its domestic policy. According to OECD statistics, Switzerland has the second-highest level of investment in education among all OECD countries.

In 2006/07 about 950,000 students were enrolled in pre-school, primary school, and low secondary level, roughly 325,000 students in the upper secondary level, and approximately 215,000 students in public higher education, a total of 1.3 million out of an overall population of 7.5 million.



# 2.1 Higher Education in Switzerland at a glance

Source: Swiss State Secretariat for Education and Research and Embassy of Switzerland

Switzerland has twelve universities, eight universities of applied sciences, and fifteen universities of teacher education, plus several specialized tertiary institutions. The main aim of the universities is teaching and basic research, while the universities of applied sciences and teacher education place a stronger emphasis on practice-oriented studies, as well as applied R&D. All institutions are largely publicly funded (80% on average).

**Terminology** — the following definitions are used: Undergraduate stands for bachelor's programs, graduate for master's programs (Master of Arts or Science) and postgraduate for executive MBA and Master of Advanced Studies (MAS).

# Universities

Switzerland has twelve public universities with a total of about 117,000 students (2007/08). These institutions offer world-class bachelor's, master's, and Ph.D. degrees, as well as several Master of Advanced Studies and continuing education courses. They focus on cutting-edge research and cover the following areas:

- Architecture and Design
- Economics
- Engineering
- Sciences
- Law and Forensics
- Mathematics and Natural Sciences
- Medicine und Pharmacy
- Humanities, Languages and Social 
   Pedagogy and Educational Sciences
  - Theology

# Universities of Applied Sciences

The eight universities of applied sciences (seven public, one private) provide a practice-oriented education and offer a wide range of bachelor's and master's programs, as well as Master of Advanced Studies and continuing education courses. Over 60,000 students attend universities of applied sciences each year. The universities of applied sciences have over 40 individual schools with tuition between USD 800 and USD 1,600 per school year. These universities are regionally organized and have campuses at multiple locations. The universities of applied sciences cover the following areas of study and research:

- Applied Psychology
- and Planning
- Agriculture and Forestry
- Business, Management and Services
- Chemistry and Life Sciences
- Design
- Architecture, Building Engineering
   Engineering and Information Technology
  - Fine Arts
  - Social Work and Health
  - Sports
  - Theater Arts and Music

# Universities of Teacher Education

Switzerland offers excellent teacher training programs. In 2007/08, approximately 12,000 students attended courses at the fifteen universities of teacher education, which have both a scientific and practical approach. These institutions grant diplomas at all levels. Their research, done in collaboration with other universities and universities of applied sciences, concentrates on their own occupational field to ensure that student training incorporates the latest educational and scientific findings.

# **Bologna reform**

In the past few years, Switzerland fundamentally restructured its higher education system. Within the framework of the 1999 Bologna Declaration, the country participated in the unification of European academic studies and introduced a three-cycle system based on Bachelor's, Master's, and doctoral degrees to ease the transfer from one institution to another for students, faculty, scientists, and administrators. To guarantee a maximum of student mobility, the Bologna process includes the European-wide adoption of the European Credit Transfer and Accumulation System (ECTS).

# 12 Campus and Research Park Switzerland

#### **Special institutes**

Switzerland has many outstanding specialized institutes. These are located in Geneva (international relations and development studies), in Lausanne (public administration), and in Sion (tourism and children's rights). Training and continuing education for professionals in the field of vocational education is offered in Lausanne, Bern/Zollikofen, Zurich, and Lugano.

#### **Private institutions**

Switzerland is also home to numerous excellent private institutions, providing an alternative to public schools. About 5% of all pupils complete their compulsory education at private schools. Private institutions also play a major role in postgraduate education and specific domains, such as business or hotel and tourism management. Regulations for a mandatory national accreditation are in the process. Up to now serious institutions have complied with the standards of their respective national or international association or have sought international accreditation.

# 2.2 Rankings of the Swiss universities

Swiss institutions of higher learning are among the best according to international rankings. Several rankings illustrate this excellent academic position. In 2007, in the two most significant world university rankings, the Shanghai Jiao Tong and the Times Higher Education Supplement World University ranking, five Swiss universities could be found among the top 150.

University Ra	nking: Shanghai 、 Tong 2007	Jiao Ran Educa	king: Times Higher ion Supplement 2007	
ETH Zurich	27		42	
University of Zurich	58		140	
University of Basel	82		114	
EPF Lausanne	102-150		117	
University of Geneva	102-150		105	
University of Bern	151-202		N/A	
University of Lausanne	203-304		N/A	

Besides the overall outstanding performance of Swiss universities, a closer look at specific fields reveals their excellence. The Shanghai Jiao Tong Ranking 2008 ranks the ETH Zurich at position 15<sup>th</sup> and the University of Geneva at position 62<sup>nd</sup> in the natural sciences and mathematics. The EPFL performs particularly well in engineering sciences, technical sciences and information technology, ranking 18<sup>th</sup>. In the life sciences and agriculture, the University of Zurich is at position 29 and the University of Basel is ranked 37<sup>th</sup>.

# 2.3 Universities



# ETH Zurich

www.ethz.ch master@rektorat.ethz.ch

Consistently ranked the top university in continental Europe, ETH Zurich is a leading player in research and education in Switzerland and the world.

The 16 departments of ETH Zurich offer bachelor's, master's, and doctoral programs in engineering and natural sciences. The language of instruction in the bachelor's programs is German, whereas courses at the graduate level are taught in English. All degree programs provide a solid scientific base, preparing ETH graduates to apply their knowledge and skills in industry, business, or the public sector, as entrepreneurs or scientists.

The international outlook: Nearly 60% of professors have been recruited from abroad. The excellent infrastructure and the attractive urban environment of Zurich make ETH Zurich the ideal place for creative personalities. The ties to businesses and industries are very close, the greater Zurich area being the economic center of Switzerland and home to numerous international companies. Beyond world-class education Zurich offers many other highlights: metropolitan flair, excellent sports facilities, an extensive range of cultural and recreational offerings, and a vibrant nightlife.

#### Key Figures

Nobel Laureates: 21 Number of students 07/08 : 13,197 Female students 07/08: 29,7% International students 07/08: 28% Annual tuition fees 07/08: (Swiss and non-Swiss) CHF 1.288

#### **Teaching and Research Areas**

- Construction Sciences: Architecture; Civil, Environmental and Geomatic Engineering
- Engineering Sciences: Computer Science, Electrical Engineering and Information Technology; Materials Science; Mechanical and Process Engineering; Micro and Nanosystems; Bioinformatics
- Natural Sciences and Mathematics: Biology; Chemistry; Chemical Engineering and Biotechnology; Computational Science and Engineering; Human Movement Sciences; Mathematics; Physics; Pharmaceutical Sciences
- System-Oriented Sciences: Agricultural Sciences; Earth Sciences; Environmental Sciences; Food Science
- Management and Social Sciences: Management, Technology and Economics; Comparative and International Studies



#### Anna Ludeke

B.S. in Computer Science at Northwestern University in Evanston, Illinois, U.S.A.

"Studying abroad at ETH Zurich was one of the best experiences I have had. The faculty, fellow students, and administration made my time there better than I could have hoped for. I took mainly Computer Science courses, and was also able to have language classes that genuinely made me feel more a part of the culture. The mix of nationalities and variety of extracurricular groups and activities allowed me to become immersed in a truly international atmosphere. I would highly recommend ETH to anyone thinking of studying an engineering or science-related field; it is an excellent Swiss university with so much to offer. I miss my time spent there already, and cannot wait to get the opportunity to go back."



# EPFL

www.epfl.ch students@epfl.ch

Founded in 1853, the Ecole Polytechnique Fédérale de Lausanne (EPFL) has evolved into a top-ranked research and teaching university that attracts some of the best intellects in the world. Uniquely situated in one of Europe's most beautiful places, 10,000 people share this campus and interact daily to learn and explore. More than a hundred nationalities are represented on campus, and 50% of the teaching staff originates from abroad. EPFL offers 19 master's programs in engineering, basic sciences, computer and communication sciences, life sciences, civil engineering, architecture and the environmental studies. Students follow programs at the bachelor's, master's, and doctoral level, and enjoy many opportunities for international exchange. The campus is structured to encourage interdisciplinary learning, and students at all levels participate in research projects in the campus' 250 laboratories and research groups. In addition to excellence in education and

#### **Key Figures**

Number of students 07/08 : 6,528 Female students 07/08: 25% International students 07/08: 43% Annual tuition fees 07/08: (Swiss and non-Swiss) CHF 1,266

#### **Teaching and Research Areas**

- Mathematics, Physics, Chemistry and Chemical Engineering
- Architecture, Civil Engineering, Environmental Sciences and Engineering
- Electrical and Electronics Engineering, Mechanical Engineering, Materials Science and Engineering, Microengineering
- Computer Science, Communication Systems
- Life Sciences and Technologies
- Management of Technology and Entrepreneurship
- Financial Engineering

research, EPFL is committed to technology transfer as a fundamental part of its mission. An average of 10 new start-up companies are formed each year from innovations discovered at the EPFL.



# **University of Zurich**

www.uzh.ch international@int.uzh.ch

University of Zurich is the largest university in Switzerland and plays a leading role in Swiss higher education. It offers its 24,000 students a wide variety of studies, with more than 100 different degree programs and over 3,000 combinations of disciplines in seven faculties.

The university's strong commitment to the highest scientific standards and responsible research is the foundation of excellence in research and teaching.

#### **Key Figures**

Nobel Laureates: 12 Number of students 07/08 :24,195 Female students 07/08: 55,5% International students 07/08: 15% Annual tuition fees 07/08: Swiss CHF 1,378 non-Swiss CHF 1,578

#### **Teaching and Research Areas**

- Arts and Social Matl Sciences and
  - Mathematics and Sciences
- Law
- Economics
- Medicine
- Veterinary Medicine
- Theology

The University of Zurich belongs to the League of European Research Universities (LERU). On the national level, it is the leading institution for five National Centers of Competence in Research in the fields of life sciences, economics, and the humanities.

Of great importance to the University of Zurich is the promotion of young academics who are encouraged and supported in their research activities and in preparing for international careers. Through close cooperation with the ETH as well as with other Swiss and international institutions of higher education, the University of Zurich initiates and sustains academic exchange at the highest level.

With its modern infrastructure and excellent local and international networks, the University of Zurich is well integrated into the cultural and economic metropolis and offers an attractive and stimulating working environment to more than 2,600 research and teaching staff from all over the world.



# University of Geneva

www.unige.ch intl@intl.unige.ch

The University of Geneva was founded in 1559, upon the initiative of Jean Calvin. It is nestled in the heart of a city of great international renown and intellectual heritage, and defines itself as a place of reflection, teaching, and dialogue. With a student body from 137 different countries, the University of Geneva is the second largest university in Switzerland, and also hosts the largest number of female students. Just like the city of Geneva itself. the university enjoys a strong international reputation, both for the quality of its research (it ranks among the top institutions among the League of European Research Universities) and the excellence of its education. This acclaim has been won in part due to its strong ties to many national and international Geneva-based organizations, such as the

#### **Kev Figures**

Number of students 07/08 : 13,663 Female students 07/08: 60.1% International students 07/08: 36% Annual tuition fees 07/08: (Swiss and non-Swiss) CHF 1,000

#### **Teaching and Research Areas**

Psychology and

Educational

Sciences

Architecture

Translation and

Interpretation

- Sciences
- Medicine
- Arts
- Economical and **Social Sciences**
- Law
  - Protestant Theology
  - Independent institute with links to the University of Geneva
  - Graduate Institute of International and Development Studies (IHEID)

World Health Organization, the International Telecommunications Union, the International Committee of the Red Cross, and the European Organization for Nuclear Research.

The University of Geneva is a comprehensive university offering a wide range of programs. Its domains of excellence in research include life sciences (molecular biology, bio-informatics), physics of elementary particles, and astrophysics. Furthermore, the University of Geneva boasts one of the oldest and finest translation and interpretation schools in the world, the ETI.



# **University of Bern**

www.unibe.ch infodesk@int.unibe.ch

The University of Bern offers top-quality across the board: it enjoys special recognition in leading-edge disciplines, is renown for the excellent quality of its teaching, and offers a delightful campus environment, intimately linked to the social, economic, and political life of the city. The University of Bern is a leader in a number of research fields. For example the Physics Institute, with its space research program, took part in Man's first lunar expedition and continues to supply

# **Key Figures**

Nobel Laureates: 2 Number of students 07/08: 13,129 Female students 07/08: 51,8% International students 07/08: 11% Annual tuition fees 07/08: (Swiss and non-Swiss) CHF 1.310

**Teaching and Research Areas** 

- Theology
- Law
- Economics and

- Social Sciences
- Humanities

research instruments and experimental results to NASA and ESA missions. Bern enjoys a leadership position in three National Centers of Competence in Research: "Climate", "World Trade Regulation", and "North-South" (sustainable development).

The University of Bern offers more than 90 different degree programs; the focus is particularly on interdisciplinary combinations.

The infrastructure is of very high quality, even in aesthetic terms. Some of the buildings, such as the "Unitobler" - a former Tobler chocolate factory that is now home to the faculty of humanities - have won architectural awards. Thanks to its relatively small size of 12,000 students, the ambience is friendly and personal. The 140 institutes are mostly within walking distance of the main building, an impressive turn-of-the-century edifice overlooking the medieval town of Bern - a UNESCO world heritage site. The city of Bern itself is embedded in a beautiful natural environment with hills, woods and lakes.

 Human Sciences Sciences

- Medicine
- Veterinary Medicine



# University of Basel

www.unibas.ch mobility@unibas.ch

Founded in 1460, the University of Basel is the oldest university in Switzerland. A rather small university with a long-standing tradition of excellence, it is a distinguished center of teaching and research.

Situated on the three-nation border of Switzerland. Germany, and France, Basel is at the very core of central Europe. The University, located attractively near the medieval city center, benefits from the international and open-minded flair which character-

# **Key Figures**

Nobel Laureates: 1 Number of students 07/08: 11,192 Female students 07/08: 55.7% International students 07/08: 22% Annual tuition fees 07/08: (Swiss and non-Swiss) CHF 1,400

#### **Teaching and Research Areas**

- Humanities and Social Sciences
- Law Economics
- Medicine
  - Psychology
- Natural Sciences
- Theology

izes the city. With its several world-famous museums, Basel has a rich cultural life.

The University of Basel has a warm and personal atmosphere. Even with some 10,000 students, it is still easy to make friends. The historic and modern buildings are inspiring sites for learning, equipped to meet the educational and professional challenges of the modern knowledge economy. The students can choose from a wide range of quality programs offered by seven faculties which excel at teaching and research. Known for its outstanding competence and innovation in emerging fields of science, the University of Basel considers life sciences and culture as its core research areas.



#### University of Lausanne

www.unil.ch international@unil.ch

Founded in 1537, the University of Lausanne comprises seven faculties where approximately 11,000 students and 2,200 researchers work and study. Emphasis is placed on an interdisciplinary approach, and there is close cooperation between students, professors, and teaching staff.

The University of Lausanne is spread over three sites, the largest of which is in Dorigny on the shores of Lake Geneva. The peaceful green landscape with views of the Alps and the lake provides an ideal setting for study and research. A wide variety of disciplines are covered, ranging from Greek Numismatics to Cyber-Marketing or Developmental Biology, and three faculties are unique in

#### **Key Figures**

Number of students 07/08: 11.032 Female students 07/08: 56% International students 07/08: 21% Annual tuition fees 07/08: (Swiss and non-Swiss) CHF 1,160

#### **Teaching and Research Areas**

- Arts
- Biology
- Medicine Political
- Business and Economics
- Criminal Justice • French as a
- Foreian Language
- Geosciences and Environment
- Law

- Sciences
- Protestant Theology
- Psychology
- Social Sciences
- Sport Science
- · Study of Religions

Switzerland: Law and Criminal Justice, Biology and Medicine, and Geosciences and Environment.

Attractively located in the heart of the French-speaking region of Switzerland, the University of Lausanne pursues an active collaboration at local and international levels. More than 30% of the teaching staff and more than 20% of the students come from abroad.

Up-to-date, well-equipped, and at the forefront of the latest technological developments, the University of Lausanne is an ideal center for the exchange of ideas that lead to intellectual, scientific, and economic progress.



# University of Friboura

www.unifr.ch international@unifr.ch

The University of Fribourg is the bilingual university "par excellence" in Switzerland, Fribourg is a typical university town, with a high quality of life and excellent conditions for progressing in one's studies. At the crossroads of Germanic and Roman languages, it constitutes a cultural bridge between the German and French traditions, as well as between northern and southern Europe. The university itself reflects

#### **Kev Figures**

Number of students 07/08: 9.652 Female students 07/08: 57.1% International students 07/08: 18% Annual tuition fees 07/08: Swiss CHF 1,210, non-Swiss CHF1,510

#### **Teaching and Research Areas**

- Economics and **Social Sciences**
- Theology
- Humanities
- Mathematics and Natural Sciences
- Law
- Literature

this situation: 50% of the students speak German as their mother tongue, 30% French, and 7% Italian. Created in 1889, the university embodies a living dynamic interaction among around 215 professors and 10.000 students from over 100 countries.

Students often choose Fribourg because its programs can be followed in German and French. Students can obtain a diploma with a specific "bilingual" certification which gives them a competitive advantage on the job market. However, bilingual study is not mandatory. English is compulsory at the master's level in sciences. Lectures in English are available in the major disciplines.

The University of Fribourg has established a number of collaborative partnerships with leading universities around the world to promote exchanges, joint teaching programs, and research projects. Research at the University of Fribourg is based on teamwork, interdisciplinary strategies, ethical responsibility, and an open dialogue with the commercial world, 200 research groups work on some 650 projects, many of which find an immediate industrial application.



# University of St.Gallen

www.unisg.ch info@unisg.ch

Founded in 1898, the University of St. Gallen (HSG) continues to pursue the goal of providing students with a practice-oriented education, guided by an integrated conception of business, economics, law, and social sciences. The HSG is consistently ranked among the top business schools in Europe, with EQUIS and AACSB international

# **Kev Figures**

Number of students 07/08: 5.970 Female students 07/08: 27,5% International students 07/08: 35% Annual tuition fees 07/08: Swiss CHF 2.040. non-Swiss CHF2.340

#### **Teaching and Research Areas**

- Business
- Administration Economics
- Law International Affairs and
  - Governance

accreditation underlining the commitment to a holistic curriculum that meets the highest academic standards.

While the five bachelor's programs provide general and diversified education, the master's programs (a majority is taught in English) allow students to attain greater depth of understanding of theoretical and practical subjects. Each level of study includes a component of contextual studies intended to develop skills in critical thinking, cultural awareness, and leadership, in order for graduates to meet the practical world's increasing demands for intellectual flexibility and intercultural gualifications.

Research is centered around 30 institutes and research groups, which bring theory and practice together while providing vital input for teaching. HSG students pursue extracurricular activities in more than 80 initiatives, including the annual St. Gallen Management Symposium.

A network of over 130 partner universities, including CEMS, PIM and APSIA, offer students a multitude of possibilities to gain international experience. Also double-degree programs are available to gualified students.

The campus overlooks the charming city of St. Gallen, with picturesque views of the nearby mountains and Lake Constance. A variety of nearby sporting and leisure activities as well as cultural events enhance the quality of student life.



# University of Neuchatel

www.unine.ch service.academique@unine.ch

Established in 1838 the "Académie de Neuchâtel" became a University in 1909. Today the University of Neuchatel comprises five faculties, namely, humanities, sciences, law, economics, and theology, which in turn cover around 30 different disciplines. The university offers a unique setting in French-speaking Switzerland, ensuring close contact between teachers and the 3,800 students, of which 550 are doctoral students.

The University of Neuchatel offers four master's degrees taught in English: a Master of Science in Finance, a Master of Science in Information Systems, a Master of Science in Statistics and an International Master in Management, Law, and Humanities of Sport, also called the FIFA Master.

#### **Key Figures**

Number of students 07/08: 3,681 Female students 07/08: 56.5% International students 07/08: 23% Annual tuition fees 07/08: Swiss CHF 1.030. non-Swiss CHF 1,580

#### **Teaching and Research Areas**

- Ethnology. Prehistoric Archaeology, Logopedy, Journalism
- Business Development. Statistics

International

- Health I aw
- Bioloav. Hydrogeology
- Financial Analysis, Work & Organizational Psychology,
- Sport Law Protestant Theology
- Center for Understanding of Social Processes

Other master's programs are conducted partially in English. Also offered - jointly with the University of Lucerne - is a bilingual French-German Master's degree in law.

Its French Language and Civilization Institute (ILCF) is specialized in teaching French for non-native French speakers. ILCF courses are designed for foreign students who wish to reinforce and extend their knowledge of the French language, literature, and civilization. It also offers a summer program during four weeks in July.



#### University of Lugano

www.unisi.ch relint@lu.unisi.ch

Founded in 1996, the University of Lugano (USI) is a recognized interdisciplinary and multilingual university with four faculties. Its relatively small size and highquality infrastructure facilitate student-teacher interaction and create the ideal conditions for study and research at both the Lugano and Mendrisio campuses.

#### **Kev Figures**

Number of students 07/08: 2.347 Female students 07/08: 48,4% International students 07/08: 58% Annual tuition fees 07/08: Swiss CHF 4.000. non-Swiss CHF 8,000

#### **Teaching and Research Areas**

- Architecture
- Communication
- Computer
- Sciences
- Science
- Economics

The official language is Italian, but English, the second working language, is used in many of the master's programs, in the graduate schools, and in the professional master's courses. German and French are also used as languages in a few specialist courses.

USI was among the first Swiss universities to adopt the new European university system. By means of teaching and research agreements or partnerships with other Swiss universities and with major universities in Northern Italy. USI has established an academic bridge between Northern and Southern Europe, paving the way for inter-university master's courses, cross-border doctoral schools, and research projects, notably with the Polytechnic University of Milan and ETH Zurich. The development of research in the sectors of urban planning, finance, healthcare communication, health economics, distance teaching, and in some sectors of informatics, has considerably boosted the number of postgraduates (currently over 100) as well as funding for Swiss and European projects.



# University of Lucerne

www.unilu.ch rektorat@unilu.ch

The University of Lucerne is young. Although its roots go back to 1600, it has been inaugurated as a modern university only in 2000.

**Key Figures** 

Number of students 07/08 : 2,107 Female students 07/08: 56,6% International students 07/08: 12% Annual tuition fees 07/08: (Swiss and non-Swiss) CHF 1,570

#### **Teaching and Research Areas**

- Law
   Theology
- Humanities

The convenient size of the university provides stu-

dents with a great degree of freedom and the possibility to form innovative combinations. Study courses are offered in traditional as well as in interdisciplinary subjects. Moreover, it is possible to combine elements from different faculties.

Excellent support of students is a special feature of the University of Lucerne. Law students are allocated a mentor for the period of their studies in order to ensure optimal support and to maintain a dialogue between the students and lecturers. The academic staff cultivates cooperation with numerous foreign scientific institutions. These include, among others, renowned institutions such as various Max-Planck-Institutes and Harvard University in Cambridge, MA.

# **Prof. Thomas Stocker** Institute of Climate and Environmental Physics, University of Bern

Professor Stocker is an internationally renowned climate scientist. His results on  $CO_2$ -concentrations were used by former US vice-president Al Gore in "An Inconvenient Truth," on the threat of climate change. This film is one of the most-watched documentaries of all times in the USA, and it has won an Oscar. When interviewed on his information sources, Al Gore said: "One of the leading researchers that I rely on is Thomas Stocker. My film contains brand new data that were evaluated at the University of Bern.





#### **Debasree Baneriee**

B.S. in Engineering at West Bengal University of Technology, Calcutta, India Master's student at EPFL

"I applied to the EPFL Masters Program in Computer Science due to the attractive option of a specialized minor in Biocomputing. An excellent infrastructure, strong links between academics and industry, a distinguished faculty and a myriad of available choices all make me proud of my choice. The beautiful campus, the Swiss way of functioning and a truly international student body, all contribute to make it an unforgettable experience!"

# 2.4 Universities of Applied Sciences



University of Applied Sciences of Western Switzerland

www.hes-so.ch office@hes-so.ch

The University of Applied Sciences of Western Switzerland (HES-SO) is noted for its faculty and its support staff. Bachelor's and master's degree pro-

#### Key Figures

Number of students (07/08): 13,301 Female students (07/08): 47.4% International students (07/08): 26%

#### Areas of Instruction and Research

- Engineering
   Design
- Business,
   Management
   and Services
- Health
  - Social Work
  - Arts

grams are offered in six different areas of specialization. The Master of Advanced Studies program and continuing education courses provide further possibilities for attaining professional excellence. Applied research, technology transfer, and postgraduate studies are conducted in so-called "networks of excellence," which consist of nationwide 13 groups of researchers combining resources from different schools. The main focus of each group is to align with public and private expectations to meet a practical need. This strengthens the cooperation between the universities and industry on the national level and helps individual, very promising research and development projects to earn international recognition. The University of Applied Sciences of Western Switzerland has more than 100 cooperation agreements with universities abroad with special programs to enable international mobility of students and faculty.

#### Schools

HES-SO Fribourg – Freiburg; HES-SO Geneva; HES-SO Valais – Wallis; HES-SO Arc; HES-SO Vaud; Changins School of Engineering; Ecole Hôtelière de Lausanne (School of Hospitality Management)



# University of Applied Sciences and Arts of Zurich

www.zfh.ch info@zfh.ch

The University of Applied Sciences and Arts of Zurich is among the largest institutions of its kind in Switzerland. Currently it includes three schools: applied sciences, arts, and teacher education.

Zurich has one of the world's highest standards of living and a lively cultural scene with a wide selection of first-class theaters, museums, and cinemas. In this environment, the University of Applied Sciences and Arts of Zurich offers a broad range of study programs, including bachelor's and master's degree programs, Master of Advanced Studies programs and continuing education courses. The schools conduct research

#### Key Figures

Number of students (07/08): 12,532 Female students (07/08): 50,1% International students (07/08): 11%

#### Areas of Instruction and Research

- Architecture
- Building Engineering and Planning
- Business Facility
   Management
- Management and Services
- Chemistry and Life Sciences
- Design and Art
- Engineering and IT

- Health
   Applied Linguistics
- Music
- Performing Arts and Film
- Desian
- Fine Arts
- Applied
- PsychologySocial Work
- Social Wolf
   Teacher
- Education

that serves practical purposes. Through their services, the schools make their know-how available to the Swiss administration and nonprofit organizations. Numerous projects are done in cooperation with other universities and the private sector, ensuring knowledge and technolgy transfer to the business and industrial sectors. The University of Applied Sciences and Arts of Zurich promotes the mobility of students and faculty and is integrated into international reseach networks.

#### Schools

Zurich University of Applied Sciences; Zurich University of the Arts; Zurich University of Teacher Education



# University of Applied Sciences of Northwestern Switzerland

www.fhnw.ch info.business@fhnw.ch

The University of Applied Sciences of Northwestern Switzerland comprises nine schools and academies that cover a wide range of studies. They offer very individualized, high-quality programs to their approx-

#### **Key Figures**

Number of students (07/08): 8.326 Female students (07/08): 44.7% International students (07/08): 12%

#### Areas of Instruction and Research

- Applied
- Psychology
- Engineering
- Architecture. **Civil Engineering** Geomatics
  - Education Life Sciences

Business

Teacher

Arts and Design

Social Work

imately 7,000 students. Nationally, the University of Applied Sciences of Northwestern Switzerland closely collaborates with ETH Zürich, EPFL, the University of Zurich and the universities of applied sciences, and, on the international level, it cooperates with many foreign institutions. Applied reseach generates solutions to resolve practical problems, which is of particular interest to the private sector in Switzerland and abroad. The University of Applied Sciences of Northwestern Switzerland emphasizes human aspects in its learning environment, and is committed to internationalize its research and academic instruction.

#### Schools

School of Applied Psychology; School of Architecture, Civil Engineering and Geomatics; Academy of Arts and Design; School of Life Sciences; School of Social Work; School of Engineering; School of Business: School of Teacher Education



# **Bern University of Applied Sciences**

www.bfh.ch office@bfh.ch

The canton of Bern, including the Swiss capital of the same name, is home to a million inhabitants. The Bern University of Applied Sciences consists of six departments at various locations in the cities of Bern, Biel, Burgdorf, Magglingen, and Zollikofen. Bern, Biel, and Burgdorf are medieval cities which not only have beautiful surroundings, but also offer a wide variety of cultural events and institutions. The

# **Key Figures**

Number of students (07/08): 4,943 Female students (07/08): 37.7% International students (07/08): 9%

#### Areas of Instruction and Research

- Science and Engineering
- Business
  - Administration
- Social Work
- Health
- Architecture
- Construction Conservation
- and Restoration
- Sports • Arts
- Aariculture
- Food Sciences

Bern University of Applied Sciences welcomes students from all around the globe and provides student services which support students with their curricula, accommodations, career plans, cultural and sports activities . Some of the schools maintain exchange programs with international partner institutions and encourage their students to study abroad.

#### Schools

Engineering and Information Technology; Architecture, Wood and Civil Engineering; Business and Administration; Health; Social Work; Bern University of the Arts; Swiss College of Agriculture; Swiss Federal Institute of Sports Magglingen



## Lucerne University of Applied Sciences and Arts

#### www.hslu.ch info@hslu.ch

#### Key Figures

Number of students (07/08): 4,163 Female students (07/08): 39,1% International students (07/08): 8%

#### Areas of Instruction and Research

- Engineering and Architecture
- Design and Art
   Social Work
- Economics and Business Administration
- Social Work
- Music

Lucerne is world-renowned for its beautiful setting, as well as for its rich cultural and outdoor activites. More than a tourist destination, however, Lucerne is also a center of higher education. Three institutions closely collaborate in the "Campus Lucerne": the

University of Lucerne, the Lucerne University of Applied Sciences and Arts, and the University of Teacher Education of Central Switzerland.

The Lucerne University of Applied Sciences and Arts comprises five schools with over 3,000 undergraduates and approximately 2,000 postgraduate students. Together the schools offer bachelor's and master's degree programs in engineering, architecture, economics, social work, art, design and music. More specialized programs, such as the Master of Advanced Studies and courses in continuing education, are directly focused on the practical needs of postgraduates and their employers.

To foster national and international mobility and networks, the Lucerne University of Applied Sciences and Arts collaborates with other Swiss and foreign higher education institutions, offers study programs in English and encourages extra-curricular activities.

#### Schools

School of Engineering and Architecture; School of Business; School of Social Work; School of Art and Design; School of Music



University of Applied Sciences of Eastern Switzerland

www.fho.ch fho@sg.ch

The University of Applied Sciences of Eastern Switzerland is one of the largest and most renowned educational institutions in its region. Modular study programs allow students to design their curriculum according to their personal preferences. Most of the faculty have extensive professional experience and are

# Key Figures

Number of students (07/08): 4,122 Female students (07/08): 28.8% International students (07/08): 12%

#### Areas of Instruction and Research

Engineering and IT

Landscape

- Business
   Administration
- Architecture Management • Building and Tourism Engineering and Planning • Social Work and Health

able to present their topics dynamically with a focus on problem-solving research. The various schools conduct applied research and development, allowing the university of applied sciences to maintain close contact with organizations from various sectors of industry, business, and society in general. Due to their solid knowledge and experience in generating solutions to practical problems, students can graduate with an attractive professional profile and have promising prospects in the job market.

Located at the crossroads of Switzerland, Austria, Germany, and the Principality of Liechtenstein, the University of Applied Sciences of Eastern Switzerland promotes cooperation between universities and companies based in all four countries. As part of the International University of Lake Constance, the University of Applied Sciences of Eastern Switzerland encourages an approach combining teaching as well as research and development. In addition, it has partnerships with universities in more than 12 countries, both on an educational and a professional level.

#### Schools

School of Engineering and Architecture Rapperswil (HSR); School of Business Administration; Engineering and Social Work St.Gallen (FHS); School of Business Administration and Engineering Chur (HTW); School of Engineering Buchs (NTB)



# University of Applied Sciences of Southern Switzerland

www.supsi.ch info@supsi.ch

The University of Applied Sciences of Southern Switzerland (SUPSI) is the only Italian-language University of Applied Sciences in Switzerland. Its university statute focuses on education based on professional needs and on applied research. Since its founding in 1997, the University of Applied Sciences of Southern Switzerland has constituted a fundamental part of the Italian-language university system in Switzerland with approximately 4,000 students in the marvelous Lugano region. It closely collaborates with the University of Lugano and creates a bridge toward Italy. In addition to its regional orientation, it also has a national strategy through its affil-

#### **Key Figures**

Number of students (07/08): 2,427 Female students (07/08): 37.6% International students (07/08): 29 %

#### Areas of Instruction and Research

- Architecture Business
- Administration Civil Engineering
- Computer Science
- Conservation and Restoration
- Electronics
- Interior Design
- Mechanical Engineering
- Engineering and Management

 Business Information Technology

- Music
- Nursing
- Occupational Therapy
- Physiotherapy
- Social Work
- Theater
  - Visual
    - Communication

iation with the Swiss Distance University of Applied Sciences in 2004.

The University of Applied Sciences of Southern Switzerland is noted for providing learning opportunities to individuals who have already gained some professional experience and who continue to operate in a professional capacity. The faculty includes full-time lecturers/researchers and part-time professionals. Moreover, it offers bachelor's and master's degree programs, continuing education programs, and conducts applied research projects in collaboration with companies and institutions within the region.

#### Affiliated Schools

Swiss Distance University of Applied Sciences; Dimitri Theater School; Swiss Italian Conservatory



Kalaidos University of Applied Sciences Switzerland

www.kalaidos-fh.ch info@kalaidos-fh.ch

Kalaidos University of Applied Sciences Switzerland is a private institution which earned federal recognition in 2005. Its core competence lies in an optimal interplay of science, education and practical experi-

# **Kev Figures**

Number of students (07/08): 1,291 Female students (07/08): 23,3% International students (07/08): 11%

#### Areas of Instruction

- Business and Management Nursing
- Business Information Technology
- Governance ence, as well as in study programs with a strong and consistent international market orientation. This is also reflected in the four main objectives of Kalaidos University of Applied Sciences

Switzerland: (1) integration of theory and practical experience into research and teaching; (2) innovative solutions on the basis of intercultural competence within international competition; (3) effective collaboration with industry and society; and (4) active knowledge and technology transfer. Kalaidos University of Applied Sciences Switzerland has local campuses in Aarau, Bern, Basel, Lugano, St. Gallen and Zurich and is very well integrated into those regions. An international focus is guaranteed by its locations in London and Singapore and its study programs in English.

# 2.5 Universities of teacher education

Switzerland offers highquality programs in teacher education. The institutions offer diplomas for pre-school, primary, secondary I, secondary II (or Matura school) levels, and continuing education. They also provide degrees for special-needs education, speech therapy, and psychomotor training. Universities of teacher education are located in Bern, Brig, St-Maurice, Brugg, Basel, Solothurn,



Chur, Freiburg (Fribourg), Geneva, Kreuzlingen, Lausanne, Locarno, Lucerne, Schwyz, Zug, Porrentruy, Bienne, La Chaux-de-Fonds, Rorschach, Schaffhausen, St. Gallen, and Zurich.

# 2.6 Special institutes

#### Graduate Institute of International and Development Studies (IHEID)

The Graduate Institute of International and Development Studies (IHEID) is the result of the merger between the Graduate Institute of International Studies (HEI) and the Graduate Institute of Development Studies (IUED). It is a private foundation that receives financial support from the Swiss Confederation and the Canton of Geneva.

The Graduate Institute of International and Development Studies offers master's and Ph.D. degrees in International Affairs, International Studies, and Development Studies, and joint programs with the University of Geneva. The programs are taught in English and French. Located in Geneva, the IHEID provides access to a worldwide network of international relations institutions. A cosmopolitan faculty, a multicultural student body with more than 100 nationalities represented, and financial support for students (scholarships or part-time employment opportunities) also make the institute unique in the field of International and Development Studies. *www.graduateinstitute.ch; info@graduateinstitute.ch* 

#### Swiss Graduate School of Public Administration (IDHEAP)

The Swiss Graduate School of Public Administration (IDHEAP) in Chavannes is a distinguished postgraduate institute that prepares students for senior positions in the country's public and public-private administrations. IDHEAP is accredited by the Swiss Confederation and, at the international level, by the European Association for Public Administration Accreditation. It acts as an independent observer and provider of advice and expertise, called upon by political leaders and the public administration. *www.idheap.ch; idheap@idheap.unil.ch* 

#### Kurt Bösch University Institute (IUKB)

The Kurt Bösch University Institute (IUKB), located in Sion, has been recognized as a university institute by the Swiss Confederation since 1992. Two recently created teaching and research units offer a Master of Advanced Studies in Children's Rights (in cooperation with the University of Fribourg) and a Master of Arts in Tourism (in cooperation with the University of Lausanne). In addition, the institute provides programs and courses in palliative care, mediation, geriatric medicine, gerontology and business. Strong emphasis is placed on the development of interand transdisciplinary teaching and research in their fields. *www.iukb.ch; institut@iukb.ch* 

#### Swiss Federal Institute for Vocational Education and Training (SFIVET)

The Swiss Federal Institute for Vocational Education and Training (SFIVET) serves the Swiss Confederation by offering universitylevel training and continuing education for professionals responsible for vocational education. R&D projects provide up-to-date theoretical and practical findings that are incorporated into the training and continuing education at the Swiss Federal Institute for Vocational Education and Training and also into vocational education practice. The institution has campuses in Lausanne, Bern/Zollikofen. Zurich and Lugano. www.ehb-schweiz.ch



# 2.7 Private institutions

#### **Business schools**

Switzerland offers excellent MBA and executive education programs. The International Institute for Management Development (IMD) in Lausanne is one of the world's leading business schools. IMD is renowned for its outstanding network with the business world. The executive education program at IMD was ranked 1st among European business schools and 5th worldwide by the Financial Times in 2007. *www.imd.ch* 

# **Hotel and Tourism Management Schools**

The Swiss hotel and tourism sector enjoys an outstanding international reputation. Not only were Swiss hotel management institutions the first to provide such specialized programs in the 19th century, but the Swiss have succeeded in creating a modern and thriving combination of hotel management and international business in a multicultural environment. Students from all over the globe study at Swiss hotel schools to ensure that they get a professional and future-oriented education. Hotels and tourist organizations worldwide are keen on employing Swiss-trained 'hoteliers', due to their ability to succeed in a highly competitive environment.

#### Swiss Federation of Private Schools (SFPS)

The Swiss Federation of Private Schools (SFPS) represents some 260 private schools in Switzerland. This encompasses a great variety of institutions that offer education on pre-school, primary, secondary, and tertiary levels. www.swiss-schools.ch; info@swiss-schools.ch



#### Katherine Filip

B.A. in Psychology/Clinical Neuroscience (2009) and B.A. in Philosophy (2009) at Vanderbilt University, Tennessee, U.S.A. ThinkSwiss Research Scholarship Awardee 2008

"I completed an internship in a lab that worked with the University Hospital Lausanne (CHUV), the University of Lausanne, and EPFL to form a comprehensive view of Schizophrenia. Instead of looking at clinical, biological, cellular and genetic information alone, this lab integrates the information to take a full view of the disorder and all its origins and effects. One of the most impressive traits of Switzerland—aside from how international it feels, how undeniably beautiful it is and the amazingly preserved historical sites—was how incredibly helpful, calm and friendly its citizens remain. It is the perfect place to learn a foreign language as most citizens are multilingual and very patient. It is also quite possibly the best run country in the world from the level of how the universities run to the timing of the trains."

# <sup>Chapter 3</sup> Research Park Switzerland

The knowledge-based Swiss economy invests considerably in research and innovation. R&D is crucial to ensuring long-term national prosperity. Social welfare and economic success strongly depend on a highly qualified workforce. Therefore, publiclyand privately-funded research institutions ensure Swiss competitiveness and research.

# 3.1 Overview

Switzerland's R&D expenditures are 2.9% relative to GDP, putting it in the top ten worldwide (2006). Private companies (particularly chemical, pharmaceutical, electronics, and metallurgical industries) finance three-quarters of all R&D in Switzerland, with the remainder coming from the public sector and going mainly to universities and public research institutes. Most basic research (65%) is performed in the public sector by universities, whereas applied R&D is predominantly the domain of the private sector, which finances almost 90% of this research



Switzerland actively supports its research through several government organizations dedicated to funding and promoting innovation. In addition, Switzerland is a full member of EU's 7th Framework Research Programme, contributing CHF 2.4 billion over seven years (2.8% of total).



Source: OECD Factbook 2008: Economic and Social Statistics

#### Strong impact of Swiss scientific publications

Switzerland enjoys worldwide recognition for its research. Researchers in Switzerland are not only the most productive in the world, with the highest number of scientific publications per researcher, but their publications also have the highest number of citations per publication.



Source: Swiss State Secretariat for Education and Research, all bibliometric data from University of Leiden

In relation to other countries, Switzerland's scientific research has the highest impact in the areas of life sciences, agriculture, biology and environmental sciences, as well as clinical medicine, as measured in citations per publication. In addition, there is excellent performance in engineering, computing and technology as well as in physics, chemistry and earth sciences.

Scientific Publication Impact Rankings of Top Countries by Research Area, 2002-2006							
Research Area	1	2	3	4	5		
Life Sciences	Switzerland	USA	UK	Netherlands	Germany		
Agriculture, Biology, and Environmental Sciences	Switzerland	Sweden	Denmark	USA	UK		
Clinical Medicine	Switzerland	Denmark	Belgium	Netherlands	USA		
Physics, Chemistry, and Earth Sciences	USA	Switzerland	Netherlands	Denmark	UK		
Engineering, Comput and Technology	ing USA	Denmark	Switzerland	Netherlands	Israel		

Source: Swiss State Secretariat for Education and Research, 2007, all bibliometric data from University of Leiden

#### Swiss Nobel Prize Laureates

Switzerland has one of the highest numbers of Nobel Prizes per capita, though determining the exact number is difficult since there is no common definition of a Swiss Nobel Prize laureate. Below are 25 Nobel laureates who were Swiss citizens at the time of their award ceremony, and 29 Nobel laureates of other nationalities who conducted research in Switzerland for more than five years.

**Nobel Laureates of Other** 

#### Swiss Nobel Laureates (Swiss citizens):

1901	Henry Dunant (peace) Red Cross Zurich	Natio Switz	onalities (conducted research in zerland for more than 5 years):
1902	Élie Ducommun and Albert Gobat (peace) Permanent International	1915	Richard Willstätter (chemistry) ETH Zurich
	Peace Bureau Bern	1933	Erwin Schrödinger (physics)
1909	Theodor Kocher (medicine) University		University of Zurich
	of Bern	1936	Peter Debye (chemistry) ETH Zurich
1913	Alfred Werner (chemistry) University of Zurich	1938	Richard Kuhn (chemistry) ETH Zurich
1919	Carl Spitteler (literature)	1943	Otto Stern (physics) ETH Zurich
1920	Charles Edouard Guillaume (physics)	1945	Wolfgang Pauli (physics) ETH Zurich
	International Bureau of Weights and Measures France	1953	Hermann Staudinger (chemistry) ETH Zurich
1921	Albert Einstein (physics) Kaiser-	1961	Robert Hofstadter (physics) CERN
	Wilhelm-Institut für Physik Germany	1967	Hans A. Bethe (physics) CERN
1937	Paul Karrer (chemistry) University of	1975	Ben R. Mottelson (physics) CERN
	Zurich	1976	Samuel C.C. Ting and Burton Richter
1939	Leopold Ruzicka (chemistry) ETH Zurich	1979	(physics) CERN Sheldon Lee Glashow (physics)
1946	Hermann Hesse (literature)	1070	CERN
1948	Paul Müller (medicine) Laboratory of	1982	Kenneth G. Wilson (physics) CERN
	the J.R. Geigy Dye-Factory Co. Basel	1984	Niels K. Jerne (medicine) and
1949	Walter Hess (medicine) University of Zurich		Georges J.F. Köhler (medicine) Basel Institute for Immunology
1950	Tadeus Reichstein (medicine) University of Basel	1984	Carlo Rubbia and Simon van der Meer (physics) CERN
1951	Max Theiler (medicine) Rockefeller Foundation USA	1986	Gerd Binning (physics) IBM Research Laboratory Rüschlikon
1952	Felix Bloch (physics) Stanford University USA	1987	Johannes Georg Bednorz (physics) IBM Research Laboratory
1957	Daniel Bovet (medicine) Institute of		Rüschlikon
	Public Health Italy	1987	Susumu Tonegawa (medicine) Basel
1975	Vladimir Prelog (chemistry) ETH Zurich		Institute for Immunology
1978	Werner Arber (medicine) University of Basel	1988	Jack Steinberger and Leon M. Lederman (physics) CERN
1986	Heinrich Rohrer (physics) IBM Zurich	1989	Wolfgang Paul (physics) CERN
	Research Laboratory Rüschlikon	1990	Richard E. Taylor (physics) CERN
1987	Karl Alex Müller (physics) IBM Zurich	1992	Georges Charpak (physics) CERN
	Research Laboratory Rüschlikon	1999	Robert A. Mundell (economics)
1991	Richard R. Ernst (chemistry) ETH Zurich		University of Geneva
1992	Edmond H. Fischer (medicine)	1999	Martinus J.G. Vetman and Gerardus
	University of Washington USA		'tHooft (physics) CERN
1996	Rolf M. Zinkernagel (medicine) University of Zurich		

2002 Kurt Wüthrich (chemistry) ETH Zurich

#### Researchers in Switzerland: International on all levels

International researchers are attracted to Switzerland by the high-quality research, well-funded research institutions and the innovative environment. Relatively high salaries and good quality of life are further important assets. So it is not surprising that in 2006, international Ph.D. students and postdocs were the majority at Swiss universities (53.6% in full time equivalents). The percentage of foreign professors was slightly lower, but still impressive at over 45% (Swiss Federal Statistical Office). Thanks in part to these international researchers, 3.1% of the Swiss population holds an advanced research degree (such as a Ph.D.), the highest number among all OECD countries according to 2005 statistics. It is followed by Portugal, Germany, and Sweden, as well as Austria and Finland. The percentages for the U.S. (1.3%) and Japan (0.9%) are much lower.

#### Patents - Excellent knowledge transfer

One measure of a country's innovation is the number of patents it can claim since patents reveal the number of marketable inventions derived from research. Switzerland is the European country that has filed the most patents in the three leading patent offices around the globe — the U.S., the European Union and Japan. (OECD 2008). In 2005, Switzerland ranked second in patents per million people, after Japan and before Germany, the Netherlands, Sweden, Korea, Israel and the U.S. (OECD).

# 3.2 Outstanding public research

Switzerland considers the promotion of its research to be an important task. Through the Swiss National Science Foundation (SNSF), it funds basic research at Swiss universities and independent research institutes. CTI, Switzerland's Innovation Promotion Agency, supports the transfer of knowledge and technology between businesses and universities of applied sciences, universities and research institutes. Switzerland also fully participates in European research programs as an associate country.



#### The Swiss National Science Foundation (SNSF)

In 2007, the SNSF provided research funding totaling CHF 531 million to Swiss universities and independent research institutes, supporting basic research in a variety of scientific disciplines, ranging from philosophy to nanotechnology and from engineering to medicine. Its main task is to evaluate the research proposals of individual researchers and provide funding. The SNSF also finances career programs and special grants to assist young researchers between their doctoral thesis and an assistant



professorship. In addition, the SNSF runs National Research Programmes (NRPs) and National Centres of Competence in Research (NCCRs). NRPs search for scientific solutions to pressing social, societal and economic problems such as sustainable water supply and consumption, smart materials, stem cells and regenerative medicine, opportunities and risks of nanomaterials, and religion, state and society, whereas NCCRs reinforce long-term research capacities in scientific fields that are of strategic importance to Switzerland (NCCR Table). They also contribute to a more effective research structure in Switzerland and strengthen its competitiveness.



**Prof. Michael Hengartner** Institute of Molecular Biology, University of Zurich

"After having spent all my professional career in North America, I was slightly apprehensive about moving my research lab to Switzerland. But what a pleasant surprise it was! Thanks to its two outstanding universities, Zurich is rapidly developing into a Mecca in life science research: I found excellent infrastructure, generous and stable financial support, inquisitive and eager students, and above all stimulating colleagues who constantly challenge you to give your best—all what a scientist's heart desires. And thanks to Zurich's wonderful quality of life (routinely rated #1 in the world), I enjoy my time outside the lab as much as my time inside it!"

#### National Centres of Competence in Research (NCCR)

Each NCCR consists of a "leading house" and a network of national and international partners. For 2005-2008, Switzerland's 20 NCCRs received a total of CHF 255 million in SNSF funding, CHF 360 million in university funding and CHF 95 million in third-party funding (*http://www.snf.ch/E/targetedresearch/researchprogrammes*).

#### National Centres of Competence in Research in Switzerland

Name/ Leading House	Focus	Name/ Leading House	Focus	
Affective Sciences University of Geneva	Emotion elicitation and response patterning, emotion regulation and emotion in social processes	Molecular Oncology Swiss Institute for Experimental Cancer Research	Basic tumor biology and the host response to cancer	
<i>Climate</i> University of Bern	Past climate variability, predictability, eco-system impacts and risks	ISREC Nanoscale Science University of Basel	Impact of nanometer scale on life sciences, medicine,	
<i>CO-ME</i> ETH Zurich	Potential of information technology to optimize medical interventions		biology, nanorobotics, computing or communication	
<i>Democracy</i> University of Zurich	New political decision- making processes and strategies to improve the	<i>Neuro</i> University of Zurich	Restoration of function after damage or disease of the nervous system	
FINRISK	quality of democracy Risk assessment and models of risk impacts on	<i>North-South</i> University of Bern	Global change, the pressures of these syndromes and their causes	
	decision-making processes		on human, natural, economical resources.	
Genetics University of Geneva	Function and regulation of genes during cellular and organism development	<i>Plant Survival</i> University of Neuchatel	Interactions among plants, and between plants, insects and pathogens	
<i>Iconic Criticism</i> University of Basel	Dependence of iconic criticism in our image- oriented society	<i>Quantum Photonics</i> EPFL	Interaction of light with matter	
<i>IM2</i> IDIAP Research Institute	Prototypes in the field of man-machine interaction	SESAM University of Basel	Mental health and mental disorders over a person's lifetime	
<i>MaNEP</i> University of Geneva	New electronic materials and their application	Structural Biology University of Zurich	Quantitative understanding of the 3D-structure of proteins, their foldings	
<i>Mediality</i> University of Zurich	Link between the formation of cultural meaning and modia forms		and their interactions with other molecules	
MICS EPFL	Decentralized models of IT-systems	<i>Trade Regulation</i> University of Bern	Balance between economic and other regulatory objectives	

Source: Swiss National Science Foundation, 2008

#### CTI: The Innovation Promotion Agency — "Science to Market"

The CTI is a federal agency dedicated to promoting innovation. It serves as an essential link between laboratories and industry and helps to rapidly convert state-of-the-art research findings into commercially viable products or services. The agency's motto is "science to market." To achieve this aim, the CTI supports research partnerships between universities and private companies and focuses on four areas: engineering, enabling sciences, micro- and nanotechnolo-



gies and life sciences. In 2007, CTI supported nearly 280 projects with about 530 companies and most of Switzerland's universities of applied sciences, universities and public research institutes. The CTI funded almost CHF 90 million of total project costs of CHF 217 million.

#### European research programs: Switzerland as a full-fledged partner

For a small country like Switzerland, it is extremely important to be integrated as much as possible into European and global knowledge networks. Switzerland has been involved in the EU's Framework Programmes for Research and Technological Development (FP) since 1987, although with limited rights, and was granted full participation as an associated country in 2004 by virtue of bilateral agreements. This allows Swiss researchers the same rights as their EU colleagues and includes access to the European Research Council (ERC), the first pan-European research funding body. With a budget of EUR 54.6 billion for 2007 – 2013, the seventh FP (FP7) is striving to create a European research area (ERA). Switzerland's contribution to FP7 will be about CHF 2.4 billion. In FP6 (2003-2006), Swiss researchers were highly successful at securing an overproportionate share of research grants.

Switzerland is also represented in numerous other European and international institutions and programs. Among them are EUREKA, with its economy-oriented research and development projects, the Human Frontier Science Programme (HFSP) in neurobiology and molecular biology, the European Space Agency (ESA), and the European Organization for Nuclear Research (CERN) on the Swiss-French border in Geneva.

**CERN**, the **European Organization for Nuclear Research**, is one of the world's largest and most respected centers for scientific research. Its business is fundamental physics, finding out what the universe is made of and how it works. At CERN, the world's largest and most complex scientific instruments are used to study the basic constituents of matter—the fundamental particles. It was also at CERN where the World Wide Web (www) was invented in 1990. It was originally conceived to meet the demand for automatic information sharing between scientists all over the world.

The CERN Laboratory sits astride the French–Swiss border near Geneva and is run by 20 European member states. Many non-European countries are involved as well. In 2006, the total expenditures were CHF 1.26 billion. *www.cern.ch* 

#### Public Research Institutions

Basic research takes place primarily at the universities, the four federal research institutes within the ETH Domain (Paul Scherrer Institute, Empa, Eawag and WSL) and the many other public or publicly co-financed research institutes. Universities of applied sciences focus on applied research and maintain close contact with the private sector.

#### Research Institutes (Public or publicly co-financed)

#### Budget 2007

Paul Scherrer Institute (PSI) develops and runs large, complex research facilities and plays a special role as a user lab. It is well known for its energy research, basic and applied research in physics and chemistry, and in the structural determination of materials, matter, or biological molecules. In the field of cancer treatment PSI has pioneered a proton therapy and successfully treated over 5,000 patients. www.psi.ch



Empa is an interdisciplinary research and service institute for material CHF 135 million sciences and technology development. There are five focal points of Empa's research: nanotechnology, adaptive material systems, materials for health and performance, natural resources and pollutants, and materials for energy technologies. www.empa.ch

Eawag is an aquatic research institute committed to the ecological, CHF 66 million economical and socially responsible management of water-the primary source of all life. It carries out research, teaching and consulting and forms a link between science and practical application. www.eawag.ch

WSL, the Swiss Federal Institute for Forest, Snow and Landscape CHF 63 million Research, focuses on the sustainable use and protection of landscapes and habitats and develops an integrated approach for handling the natural hazards that commonly occur in mountainous countries. www.wsl.ch

Agroscope consists of three agricultural research stations belonging to CHF 97 million the Federal Office for Agriculture: Agroscope Changins-Wädenswil, Agroscope Reckenholz-Tänikon, and Agroscope Liebefeld-Posieux. www.agroscope.admin.ch

CSEM, the Swiss Center for Electronics and Microtechnology, is a pri- CHF 58 million vately held research and development company active in micro- and nanotechnologies, microelectronics, systems engineering, microrobotics, photonics, information and communication technologies. www.csem.ch

SystemsX.ch is a research consortium with eight universities and three CHF ~ 50 million research institutions, totaling about 80 collaborative research groups that work in systems biology. www.systemsX.ch

The Friedrich Miescher Institute (FMI) is devoted to fundamental biomedical research and is part of the Novartis Research Foundation. Current research focuses on epigenetics, growth control and neurobiology. www.fmi.ch

The Swiss Tropical Institute (STI) is a public organization and consists CHF 22 million of four departments: Medical Parasitology and Biology of Infection, (2005) Public Health and Epidemiology, Medical Services, and the Swiss Centre for International Health, www.sti.ch

annually 2008-2011

CHF ~ 50 million annually

Research Institutes (Public or publicly co-financed)	Budget 2007
<b>CSCS</b> , the <b>Swiss National Supercomputing Centre</b> , develops and pro- motes technical and scientific services for the Swiss research commu- nity in high-performance computing. Located in the Italian-speaking part of Switzerland, CSCS is an autonomous unit of ETH Zurich. <i>www.cscs.ch</i>	CHF 19 million
The Swiss Institute of Bioinformatics (SIB) is a private foundation that coordinates research and education in bioinformatics throughout Switzerland and provides high quality bioinformatics services to the national and international scientific community. <i>www.isb-sib.ch</i>	CHF ~ 15 million annually
<b>Institute for Research in Biomedicine (IRB)</b> contributes to the progress of biomedical research by studying basic mechanisms of immune defense against bacteria, viruses and tumors, and by finding new approaches to diagnostics and therapy. <i>www.irb.unisi.ch</i>	CHF 11 million (2006)
The Swiss Group for Clinical Cancer Research (SAKK) conducts clinical cancer trials as a nonprofit organization. <i>www.sakk.ch</i>	CHF 9 million
<b>The Idiap Research Institute</b> is an independent, nonprofit research foun- dation that conducts cutting-edge research and development in the areas of speech processing, computer vision, information retrieval, biometric authentication, multimodal interaction and machine learning. www.idiap.ch	CHF 8 million
Swiss Institute for Art Research is a center for art research and docu- mentation that focuses on art in Switzerland. www.unil.ch/isea/	CHF 7 million

#### 3.3 Strong and impressive private research

The contribution of private sector research is key to a highly competitive and innovative Switzerland. Private companies finance three-quarters of all R&D in Switzerland. In 2004, private investments amounted to CHF 9.7 billion of a total CHF 13.1 billion R&D expenditures. This corresponds to a growth in real terms of 18% since the year 2000. The pharmaceutical industry accounts for 37% of all privately funded R&D in Switzerland, followed by the machining and tooling sector,

research and development companies, and the information and communication technologies. Eighty-seven percent of private sector research is funded by large companies with over 100 employees (Federal Statistical Office and economiesuisse).

In 2004, Swiss industry invested about the same amount for R&D (CHF 9.6 billion) in their research institutes abroad. More than two-thirds of these foreign investments were made by the pharmaceutical industry, followed by the nutritional (9%) and chemical (8%) sectors. Another category of R&D investments, mandates given out by the private sector, more than doubled to CHF 4 bil-



lion between 2000 and 2004. In short, the private sector financed R&D totaling more than CHF 23.3 billion in 2004 and employed more than 37,000 people in R&D, corresponding to over 33,000 full-time equivalents. The biggest R&D employer is the machinery sector. For more details, see the table below.

Sector	Number of Companies		R&D Inv	R&D Personnel			
		SME* (CHF mio)	Large companie (CHF mio)	Total s** (CHF mio)	% of Total	Full-time equivalents	% of Total
Food	2579	21	481	502	5%	1943	6%
Chemistry	1671	57	629	686	7%	2690	8%
Pharmaceuticals	274	15	3550	3565	37%	6018	18%
Metals	8810	35	30	65	1%	426	1%
Machinery	5428	156	1419	1575	16%	8268	25%
High Tech Instruments / Tools (incl. Medical Technology)	2810	116	429	545	6%	2515	8%
Information- and communication technology (production and services)	18425	411	794	1205	13%	5238	16%
Research and Development	702	438	934	1372	14%	5507	17%
Insurances	ND	ND	143	143	1%	479	1%
Total	40699	1249	8409	9658	100%	33084	100%

#### Research and Development of the Private Sector in Switzerland, 2004

\* Small and medium enterprises, \*\* Large companies (= companies with more than 100 employees) Source: economiesuisse 2006, based on 2004 data of the Swiss Federal Statistical Office



# **Dr. Matthias Kaiserswerth** Director, IBM Zurich Research Laboratory

"More than 50 years ago, the IBM Research organization selected Switzerland as the location for its European branch, the IBM Zurich Research Lab. There were very good reasons for coming to Switzerland in 1956, and there are at least as many for staying here today. We have highly skilled people and internationally renowned universities and other research facilities within short distances. Moreover, the political climate traditionally has been and continues to be characterized by a strong commitment to innovation, making Switzerland a hotspot for innovation and providing just the right environment for cutting-edge research, which is at the core of IBM's business."

# Case Study: IBM's European Research Laboratory in Rueschlikon

Switzerland has always been attractive as a location for the headquarters and research laboratories of leading global companies like Merck-Serono, ABB, Roche, and Novartis, among others. IBM is one example of the many companies that have been working in Switzerland for decades. Other companies such as Google continue to choose Switzerland as their European base, not only because of the excellent quality of life but especially for the highly educated workforce and strong research universities.



# **IBM Rueschlikon**

http://www.zurich.ibm.com

The American high-tech company International Business Machines Corporation (IBM) has located one of its two European laboratories in Rueschlikon, near Zurich. The world's largest IT company has had this research laboratory in Switzerland since 1956. The Zurich laboratory employs approximately 300 individuals, including as many as 30 visiting scientists who typically stay for several months of intensive collaboration. In addition, a steady stream of postdoctoral fellows, Ph.D. candidates, and summer students pass through the Zurich laboratory. More than 20 nationalities are represented among the research staff mem-

#### **Research areas:**

- Systems: servers, storage, networking
- Services & Software: privacy and data protection, information security, fluid and mobile computing, business integration technologies, intelligent business infrastructure
- Science & Technology: life science, materials for semiconductor technology, microand nanofabrication, nanoscale science, photonics and optoelectronics, post-CMOS technology, server technology, storage and memory technology
- Industry Solutions: executive briefing facility, forum of latest IBM mobile e-business offering and partner technologies

bers. The Zurich laboratory is involved in many joint projects with universities throughout Europe in research programs established by the European Union and the Swiss government.

Throughout the years, scientists of the Zurich lab have made significant contributions. Gerd Binnig and Heinrich Rohrer were awarded the Nobel Prize for Physics in 1986 for the invention of the scanning tunneling microscope. One year later, Georg Bednorz and Alex Müller received the same honor for the discovery of high-temperature superconductivity. Many other inventions were developed: new techniques to transmit data over telephone lines, to increase the storage density on magnetic hard disks, or to make secure payments over the Internet.

In spring 2005, IBM restructured its European headquarters into two regions southern/southwest Europe in Madrid and northern/northeast Europe in Zurich. This new headquarter has created around 200 additional jobs.



# Chapter 4 Studying in Switzerland

While Switzerland is known for chocolate, cheese and the Alps, one of the country's best offerings is its outstanding higher education. This chapter lists the many reasons why studying in Switzerland can be an attractive and career-oriented choice for you. (For more information, visit: www.eda.admin.ch/washington/Studying\_in\_Switzerland.)

# 4.1 High quality education and low tuition

The Swiss higher education system offers a wide range of first-rate educational opportunities to national and international students. Switzerland has twelve public universities. ETH Zurich and EPFL, the two federal institutes of technology, are among the world leaders in science and engineering education and research. The ten cantonal (state) universities provide comprehensive courses in diverse fields of study, and conduct cutting-edge research.

Excellent programs are also offered by the eight universities of applied sciences and the fifteen universities of teacher education. Moreover, Switzerland is home to several outstanding special institutes in the areas of International Affairs, Public Administration, Finance and Hotel Management.

Switzerland has a long tradition of valuing public education, including higher education. Due to the substantial public funding—on average around 80%—tuition fees are low.

Studying in Switzerland means:

- High-quality education
- World-leading research environment
- Low tuition and fees (the universities are mainly publicly funded)
- Wide spectrum of study programs
- Many study programs in English
- Ph.D. candidates are paid workforce
- Low student/faculty ratio and small working groups
- Excellent facilities

# 4.2 A wealth of master's and Ph.D. programs in English

The great majority of bachelor's programs are taught in German, French or Italian. However, for master's degrees, Master of Advanced Studies, and Ph.D. programs, English has become the main language. A wide range of programs are fully or partially taught in English in an international setting, offering attractive opportunities for international students to pursue their postgraduate studies in Switzerland. There is a broad offering of Ph.D. or postdoctoral programs, which are often organized in small working groups. At many Swiss universities, international students comprise 50% of total Ph.D. candidates, who are considered part of the workforce and are well paid. They benefit from Switzerland's position as a center of excellence in research, innovation, and international business.

Visit: www.eda.admin.ch/washington/Study\_Programs\_in\_English

# 4.3 Admission of foreign students

Applications for admission should be filed directly with the admissions office at the university or university of applied sciences that you wish to attend since they are ultimately responsible for admitting foreign students. For bachelor's programs, an important requirement for admission is proof of command of the language of instruction.

For admission to a Swiss university, applicants must provide proof of prior education equivalent to a Swiss "Maturität" (Federal academic baccalaureate), certifying that the holder has the general knowledge and skills required to enter a university. In addition, to be admitted to a university of applied sciences, the applicant must provide proof of at least one year of work experience in the chosen field. Because Swiss universities and universities of applied sciences may require foreign students to meet additional admission standards, it is best to contact the admissions office at the institution of your choice.



# 4.4 Scholarships supporting international students

Through the Federal Commission for Scholarships for Foreign Students (FCS), the Swiss government offers scholarships to foreign students from a large number of countries. Various Swiss universities offer their own scholarships and are introducing merit scholarships. Within the European Higher Education Area (EHEA), Switzerland participates in the ERASMUS student mobility program and the LEONARDO DA VINCI Vocational Training Program.

# 4.5. Studying in Switzerland: A website for international students

"Studying in Switzerland" is a comprehensive website designed for foreign students to explore the excellent study opportunities in Switzerland. Visit the website and learn what you need to know about studying in Switzerland.

Visit: www.eda.admin.ch/washington/Studying\_in\_Switzerland

#### More Links:

*www.swissuniversity.ch:* Swissuniversity.ch serves as a portal to Swiss universities, providing basic information to international students who wish to study in Switzerland.

*www.uni-programme.ch:* Uniprogramme.ch allows the user to search programs by fields of study, keyword or detailed search.

These brochures give additional insight into the possibilities of studying in Switzerland:

Studying in Switzerland – Universities: www.crus.ch

Studying in Switzerland – Universities of Applied Sciences: www.kfh.ch

Studying in Switzerland – Universities of Teacher Education: www.skph.ch



# Dr. Klaus W. Wellershoff Chief Economist, UBS AG

"The University of St.Gallen not only provided me with the necessary background, means and resources for a career in business, but also gave me real insights into scientific economic research. Both aspects are of inestimable value in my current position."

#### Switzerland's Knowledge Network

The Swiss knowledge network is a key component of Swiss foreign policy aiming at promoting education, research and innovation. To this end, Switzerland has formed a worldwide network of science, technology and higher education outposts. It includes swissnex Boston (2000), swissnex San Francisco (2003), swissnex Singapore (2004) and swissnex Shanghai (2007), as well as twelve Science and Technology Counselors at selected Swiss Embassies. swissnex Bangalore is planned for 2008/09. The network is run by the Swiss State Secretariat for Education and Research (SER), in close cooperation with the Federal Department of Foreign Affairs (FDFA).

Along with Europe and the U.S., Switzerland has signaled out India, China, Russia and South Africa as priority countries for bilateral cooperation, given their proven potential for scientific and technological development. Brazil, Chile, Japan and South Korea have also been identified as secondary priorities.

The mission of Switzerland's knowledge network is

- to strengthen and promote, through original events and projects, Switzerland's excellence as a prime location for higher education, research, technology and innovation
- to set up and maintain a robust network of contacts with universities, research institutions, companies, government agencies, governments, and other organizations in the host region and in Switzerland
- to support the internationalization of Swiss institutions in the host regions
- to support Swiss students and scientists in the host regions
- to provide background and analysis for fact-based policy decisions in Switzerland
- to help structure, implement, coordinate and extend bilateral research cooperation programs where they exist

Visit: www.swissnex.org





# Further Information on Higher Education and Research in Switzerland

# **Federal Institutions**

State Secretariat for Education and Research: www.sbf.admin.ch
Federal Office for Professional Education and Technology: www.bbt.admin.ch
Federal Commission for Scholarships for International Students: www.sbf.admin.ch/htm/bildung/stipendien/eskas-e.html
educa.ch – Official platform on education on all levels in Switzerland: www.educa.ch

# Studying in Switzerland - Universities and Universities of Applied Sciences

Studying in Switzerland: www.eda.admin.ch/washington/Studying\_in\_Switzerland Rectors' Conference of the Swiss Universities (CRUS): www.crus.ch Rectors' Conference of the Swiss Universities of Applied Sciences (KFH): www.kfh.ch Swiss Conference of Rectors of Universities of Teacher Education (COHEP): www.cohep.ch Swissuniversity.ch: www.swissuniversity.ch Study Programs in English: www.eda.admin.ch/washington/Study\_Programs\_in\_English Study Programs at Swiss Universities: www.uni-programme.ch University Rankings: www.universityrankings.ch

#### **Science and Research**

Swiss National Science Foundation (SNSF): www.snf.ch CTI: The Innovation Promotion Agency: www.bbt.admin.ch/kti National Centres of Competence in Research (NCCR): www.snf.ch/E/targetedresearch/centres National Research Programs (NRP): www.snf.ch/E/targetedresearch/researchprogrammes myScience.ch – The Swiss Portal for Research and Innovation: www.myscience.ch Euresearch – Swiss guide to European research: www.euresearch.ch The Researcher's Mobility Portal Switzerland: www.sbf.admin.ch/eracareers Swiss Education & Research Network: www.switch.ch Researchportal.ch – Research database of several Swiss universities: www.researchportal.ch

#### **Brochures**

Studying in Switzerland – Universities: *www.crus.ch* Studying in Switzerland – Universities of Applied Sciences: *www.kfh.ch* Studying in Switzerland – Universities of Teacher Education: *www.skph.ch*