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Celebrating Indo - Swiss Friendship

2009: Year of Science and Education of
Switzerland in India

 Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Embassy of Switzerland in India

www.IndiaSwitzerland.in

 **India.**
Switzerland.

CELEBRATING INDO - SWISS FRIENDSHIP

2009: Year of Science and Education
of Switzerland in India

Message



I take pride in presenting this brochure, which is the latest expression of the long lasting friendship between Switzerland & India - friendship in the fields of Science and Education.

Formal Indo-Swiss cooperation in Science and Technology (S&T) was initiated in 1966. Later on, a collaboration in biotechnology was agreed upon by India and Switzerland in 1974, and in 2006 the two governments further demonstrated their commitment to bilateral scientific research by signing the Indo-Swiss Executive Programme of Cooperation in the field of S&T. In the wake of our growing collaboration, a Scientific Counsellor at the Swiss Embassy in New Delhi and an Executive Director of swissnex for India have been appointed. The launch of the first Swiss satellite "SwissCube"* from India, this spring, will be a memorable occasion to celebrate, once more, a successful collaboration between India and Switzerland.

We commence the year 2009 with a number of projects and hope to thereby expand the horizons of synergies between both countries. I wish this endeavour all success.

His Excellency Philippe Welti
Ambassador of Switzerland

*For further information on the Swisscube: <http://swisscube.epfl.ch>

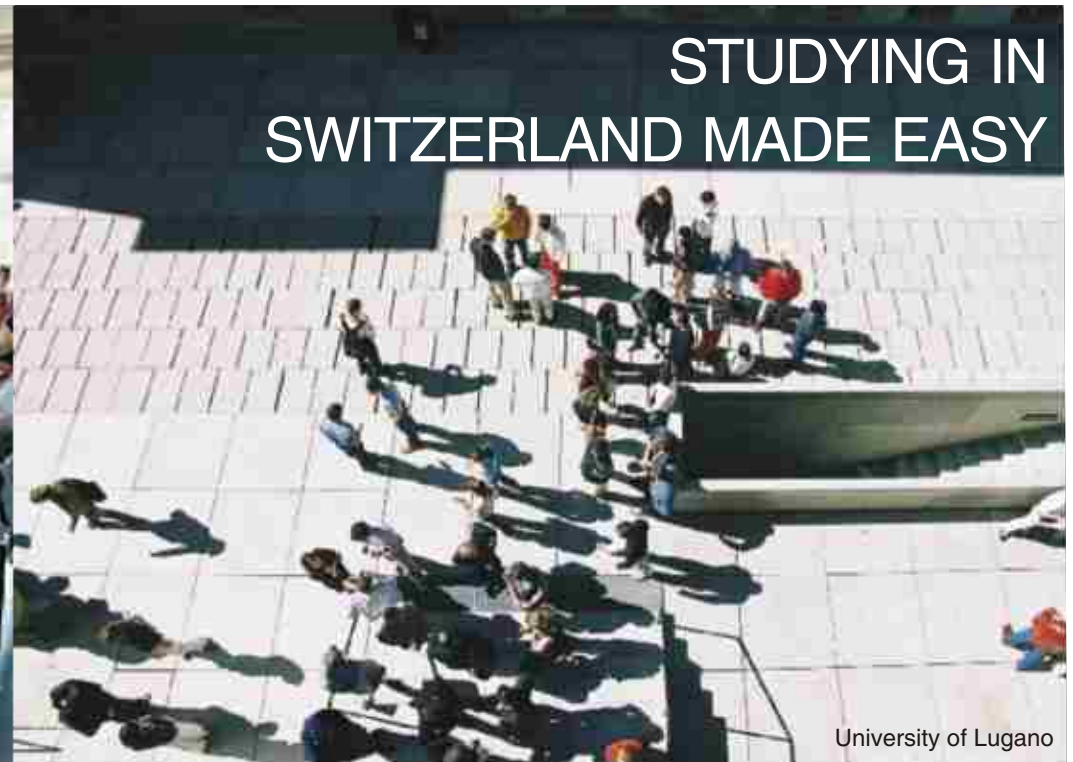
PORTRAIT SWITZERLAND



Disentis, canton Graubunden
The village of Disentis in winter with monastery in the background

Switzerland, a diverse and multicultural country, is located in the heart of Europe. The country has four official languages: German, French, Italian and Romansh. English is widely spoken and increasingly used as the primary language of business, in higher education, and research. Apart from this, Switzerland provides an outstanding quality of life, which few other places in the world can offer. It is a clean and safe country with a gorgeous landscape, and is number one in the world as far as environmental performance goes. Switzerland is a premier destination for higher education with numerous courses taught in English, and accounts for some of the best ranked

universities in the world. The country offers a liberal and highly competitive business environment. Among 131 surveyed countries, the Geneva-based World Economic Forum ranked Switzerland as number two, after the US, in its Global Competitiveness Report 2007-2008. With its value creation and substantial employment, the financial sector is an important pillar of the Swiss economy, which focuses on high tech, quality work and skilled workers and strongly depends on foreign trade. Switzerland, the third largest supplier and second largest customer of the EU, is an excellent financial center and attractive location for foreign investors.



Switzerland has twelve public universities offering a wide range of first-rate education 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 scientists' 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 in the financial services, in the pharmaceutical and chemical sectors, and in 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 make Switzerland a great place to study and conduct research.

STUDYING IN SWITZERLAND MADE EASY

The Swiss Government grants scholarships, for Swiss Public Universities and Federal Institutes of Technology, to graduate students wishing to pursue their higher education in Switzerland.

The scholarship applications for the academic year beginning in Sep./Oct. 2010, with completed documents, must be submitted to the Embassy of Switzerland New Delhi by October 31, 2009.

For more information and scholarship forms please visit :

www.eda.admin.in/newdelhi

Alternatively, students may write to:
ndh.vertretung@eda.admin.ch



INDO-SWISS JOINT RESEARCH PROGRAM



IDIAP (Dalle Molle Institute for
Perceptual Artificial Intelligence)
"Smart Meeting Room"



Life Sciences Department
of EPFL, Lausanne

Indo-Swiss Joint Research Program (ISJRP) supports cutting edge research that brings together faculty and students from Switzerland and India.

ISJRP was initiated in 2003 by the Swiss State Secretariat of Education and Research (SER) and the Indian Department of Science and Technology (DST) with the goal of furthering strategic scientific and technological cooperation relevant to Switzerland and India.

This purpose is achieved primarily by supporting research partnerships between Swiss and Indian scientists, by promoting faculty and student exchanges between the two countries, and by facilitating access to specialised equipment and resources in the counterpart country.

ISJRP has three program priorities:

- to catalyse the formation of Indo-Swiss research partnerships and institutional links;
- to facilitate the mobility of scientists and students between Switzerland and India; and

- to enhance excellence in research and research capabilities by combining the resources of both countries.

On the Indian side, ISJRP is directed and coordinated by DST. In Switzerland, ISJRP is implemented and managed by the Ecole Polytechnique Fédérale de Lausanne (EPFL), the Swiss Leading House for India. Since 2008, EPFL is assisted by the University of Lausanne (UNIL), the Associated Leading House for India.

ISJRP operates on the principle of reciprocal funding. Swiss funds made available by SER are being matched by funds from DST. Since its inception, ISJRP has issued two calls for joint proposals, one in January 2005 and one in December 2007. Both calls aroused strong interest among Swiss and Indian scientists, reflecting the high demand for such an opportunity. A specific call for exchange grants (Research Fellowships & Joint Utilisation of Advanced Facilities) is slated to be repeated on a yearly basis over the period 2008 - 2011.

<http://indo-swiss.epfl.ch>

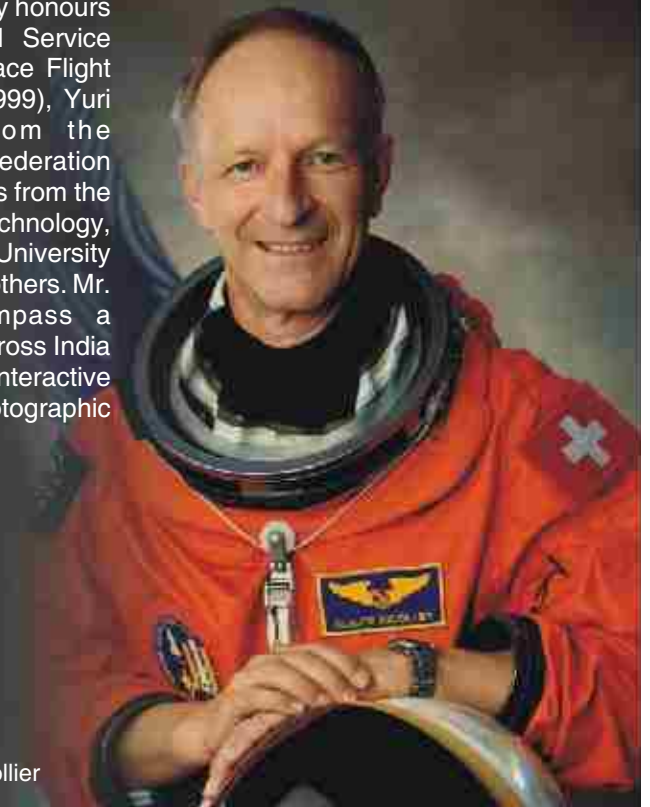
SOME OF THE PROJECTS PLANNED FOR 2009.....



Technorama, the Swiss Center, Winterthur

JOIN THE FLIGHT INTO THE FASCINATING WORLD OF SPACE - THE SWISS WAY!

The moment one talks about Switzerland, a number of images conjure up in one's mind. But the association of Switzerland with Astronomy may not be one that comes up immediately. It is with the aim of presenting this important aspect that the visit of famous Swiss astronaut, Mr. Claude Nicollier, is being planned for the second half of 2009. Mr. Nicollier is the recipient of many honours like the NASA Distinguished Service Medal (2001), four NASA Space Flight Medals (1992, 1993, 1996, 1999), Yuri Gagarin Gold Medal from the International Aeronautical Federation (1994) and honorary doctorates from the Swiss Federal Institute of Technology, Lausanne and the Geneva University (both in 1994), amongst many others. Mr. Nicollier's tour will encompass a minimum of three/four cities across India and diverse components like interactive workshops, presentations, photographic exhibitions and much more!



Swiss astronaut Prof. Claude Nicollier



The entrance hall of the Federal Parliament Building, Bern with the canton coats of arms

GET TO KNOW SWITZERLAND BETTER! ON THE JOB TRAINING - THE BEST WAY TO LEARN!



Swiss Institute for Speleology and Karst Studies ISSKA, La Chaux-de-Fonds
Permanent underground glacier located in the grotto Montlézi in the Jura region

GET TO KNOW SWITZERLAND BETTER!

Switzerland has a lot to offer for different kinds of people. The aim of this project is to increase extensive and in-depth awareness on Switzerland and make the entire process a 'learning by doing' one. The target audience would be decision makers of tomorrow or students. With Switzerland being the focus country, a number of competitions such as quizzes, drawing- and essay-competitions are planned in different educational institutions across a maximum of five cities namely Delhi, Mumbai, Chennai, Bangalore and Kolkata. This project is planned for April, 2009.

ON THE JOB TRAINING - THE BEST WAY TO LEARN!

It is a proven fact that one of the most effective ways of learning is by doing. An industrial site-visit is a medium, which facilitates this kind of learning. Not only are students belonging to a particular field acquainted with state-of-the-art technologies but also exposed to day-to-day operations thereby bringing students closer to how a modern-day accomplished industry works. The close linkage to their subject will serve as on-the-job information received through on-site visits. Furthermore, the Indo-Swiss link is established through the fact that the company is Indo-Swiss. This project is foreseen for the second half of 2009.

INDIA AND SWITZERLAND FRIENDSHIP IN DIVERSITY SIMILARITIES IN DIVERSITIES



Numerous children participate in course of lectures ("children's university"), at the University of Zurich, 2004

FRIENDSHIP IN DIVERSITY

The best way to generate interest and extensive and in-depth learning of Switzerland is by encouraging children to read and study diverse sources of information and present the same in a way that will bring out the best of their creativity. Studies have revealed that such projects stay in long-term memory, generating excellent recall value. The project includes introduction of Switzerland as a focus country for a subject like Geography and/or Social Sciences, where most schools have a country focus; and thereafter make an entire project file on Switzerland, encompassing its various aspects (usual and unique) and identifying striking similarities and differences with India. This project is planned for April, 2009.

A supporting project, to the program, is the endeavour of providing a mini library kit, on Switzerland, to various educational institutions, so as to encourage active reading on the country.

SIMILARITIES IN DIVERSITIES

Photography is one of the arts, which captivates all senses. It is foreseen to organize a unique photography competition, where students capture similarities between India and Switzerland, locally. This can be very challenging and interesting. It is an innovative and creative way for students to discover similarities in diversities, making them aware of either country extensively and intensively. Apart from this, the drive behind this project will be high as these photographs will be showcased in a unique photo exhibition. This project is scheduled to take place in October/ November, 2009.



Photo Museum Winterthur

Technorama, The Swiss Science Center, Winterthur
Humans create clouds



EDUCATING THE EDUCATOR

- THE SWISS WAY!



Swiss Tropical Institute, Basel
STI course on Health Care and Management
in Tropical Countries (HCMTC)

Of utmost importance is educating the educator. Switzerland is known for its educational system and this project highlights this very important aspect. Conduction of workshops with an educationist from Switzerland applies a two pronged approach: with subject teachers and with language teachers.

For the former, the focus will be: educating the decision makers of tomorrow on how to become global

citizens in an internationally ever-changing environment. The topic for the latter will be multiliguism in today's world and Switzerland as a focus country in teaching a foreign language. This project is planned for the second half of 2009.

DECRYPTING MATHEMATICS WITH PROF. ROLF JELTSCH

Mathematics is an important and sought-after subject in India. Prof. Jeltsch, a Swiss mathematician at ETH, Zurich, was in India in Jan. 2008 for a conference in Agra and it was during that time that the Embassy in Delhi contacted him for conducting a possible lecture at IIT Delhi, which was well received. The project is now being taken to the next level with an extensive tour across India, covering all 5 target cities, and involving decision makers of tomorrow, at premium educational institutions, through presentations, interactions etc.

Since the theme of the year is 'science and education', presentation of a Swiss element in a subject, which draws a lot of respect and interest amongst the target audience, will help present the diverse image of Switzerland effectively. Apart from this, Mathematics is a lesser known Unique Selling Proposition of Switzerland, which will be brought across to the target audience in an interactive and innovative fashion, addressing key and interesting issues in the subject.

This project is scheduled for Nov./Dec., 2009.

For more information on projects in 2009:
www.IndiaSwitzerland.in

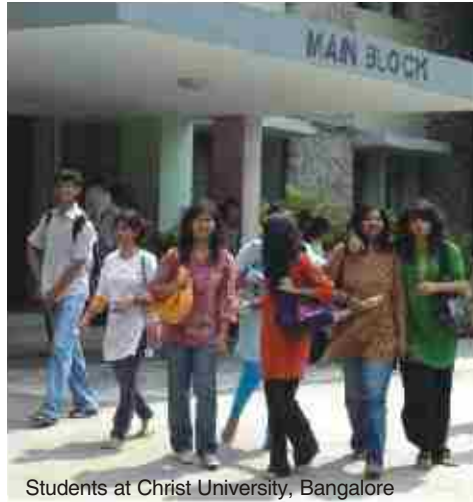


SWISSNEX

STATE SECRETARIAT FOR EDUCATION AND RESEARCH SER



IIT Mumbai Techfest 2009



Students at Christ University, Bangalore

swissnex is Switzerland's knowledge network for science and technology. It is an initiative by the State Secretariat for Education and Research (SER).

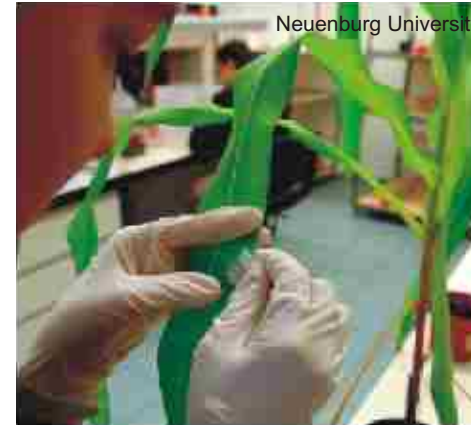
swissnex bridges knowledge and competencies in science, education, art and innovation. It provides an innovative platform for interaction and creates interdisciplinary networks. swissnex supports the bilateral research program between India and Switzerland and establishes contacts between scientists and institutions from Switzerland and the host region. swissnex are located in Boston (2000), San Francisco (2003), Singapore (2004) and Shanghai (2007). In India, a swissnex is planned to open in Bangalore in 2009.



Swimming roboter from EPFL at IIT Mumbai



www.swissnex.org



Neuenburg University



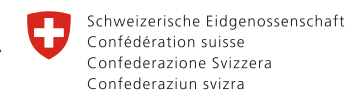
Paul Scherrer Institut (PSI), Villigen
Multidisciplinary research institute for natural and engineering science

The State Secretariat for Education and Research (SER) is responsible for preparing and implementing policies regarding general education, science, research, higher education and the space sector. Acting on behalf of the Federal Department of Home Affairs, SER has the following mandate:

- › Promote high-quality teaching and research at Swiss universities;
- › Encourage interaction between science and industry as well as dialogue between science and society;
- › Strengthen the international competitiveness of Swiss higher education and research institutions;
- › Facilitate international scientific cooperation by ensuring that Swiss universities are part of the European Higher Education and Research Area;
- › Work to develop Switzerland's higher education and research system through a clear division of tasks and intensive cooperation;

- › Encourage the mobility of university students, teachers and researchers;
- › Coordinate and lend support to space research and applications.

In pursuit of this mandate, SER works closely with various partners, particularly the Federal Office for Professional Education and Technology (responsible for federal policies on vocational training, universities of applied sciences and innovation), the Swiss University Conference (joint federal and cantonal body responsible for university policy), the Rectors' Conference of the Swiss Universities (responsible for coordination and cooperation among universities) and the Swiss Conference of Cantonal Ministers of Education (responsible for intercantonal coordination in all spheres of education policy).



Swiss Confederation

Federal Department of Home Affairs FDHA
State Secretariat for Education and Research SER

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 at 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/targetresearch/researchprograms.ch

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/ercareers

Swiss Education & Research Network: www.switch.ch

Researchportal.ch - Research database of several Swiss universities:

www.researchportal.ch

FOR GENERAL INFORMATION ON SWITZERLAND

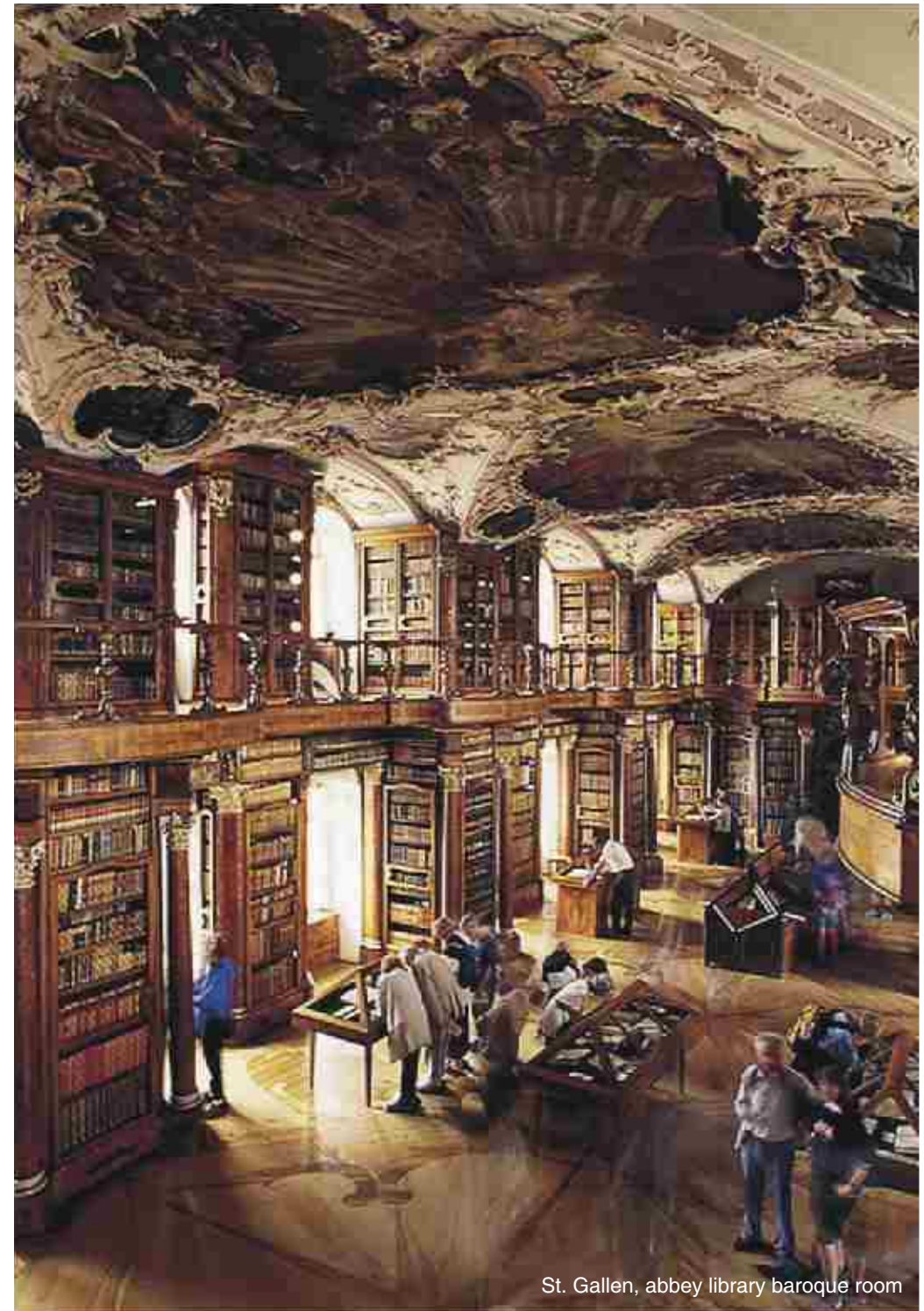
www.eda.admin.in/newdelhi (Embassy of Switzerland in India)

www.swissworld.org

ACKNOWLEDGEMENTS

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Brochure - Campus and Research Park Switzerland: www.sbf.admin.ch/campus-switzerland



St. Gallen, abbey library baroque room