The Mission of Swissnex Shanghai

Shaping the future of Sino-Swiss cooperation in science, technology and culture

By Lan Zuo Gillet, Deputy Director of Swissnex Shanghai, Consul for scientific matters at Consulate General of Switzerland

Switzerland boasts one of the highest numbers of Nobel laureates per capita in the world and is recognised as the global standard of scientific quality, for the overall impact of the scientific articles produced in its universities and for the excellence of its research facilities. However, although Switzerland is widely acknowledged in China as a nation that provides high quality services and produces innovative products, its world-class scientists, research facilities and educational system – the backbone of Swiss scientific culture - are less well-known to the Chinese people. After two years of planning and incubation, Swissnex has begun full operations in China at a time when many Swiss companies are sinking strong roots into Chinese soil.

Who we are

Swissnex is a network of science and technology outposts run by the Swiss State Secretariat for Education and Research (SER) in close cooperation with the Federal Department of Foreign Affairs. The SER currently handles five “knowledge” outposts - Swissnex Boston (2000), Swissnex San Francisco (2003), Swissnex Singapore (2004) and Swissnex Shanghai (2007) with Swissnex Bangalore set to open in 2008/09.

Swissnex has three primary goals: To foster scientific cooperation between Switzerland and host countries in areas of common interest; to brand Switzerland as a global scientific powerhouse; and to establish a network of brilliant Chinese and Swiss scientists for bottom-up initiatives of cooperation in the future.

Swissnex is a key component of the strategic policy set by the Swiss Federal Council for the promotion of education, research and innovation. In addition to Europe the United States, India, China, Russia and South Africa are priority countries for bilateral cooperation with Switzerland, given their proven potential for scientific and technological development. Brazil, Chile, Japan and South Korea
will get special attention as well.

Various visits

Early in 2006, the former Director of the Swiss National Science Foundation, Dr. Hans-Peter Hertig, was appointed by former State Secretary Charles Kleiber to be the project leader in setting up a Swissnex outpost in China. Mr. Hertig worked closely with the Swiss Embassy and with the Consulate General in Shanghai, conducted a series of studies of the Chinese education and research systems, and laid the cornerstone of a network of Chinese scientists and key people in charge of education and scientific research. By the time of its soft opening at the end of 2007, Swissnex was already an operating unit located in a brand new office of original modern design next to the Consulate General of Switzerland in Shanghai.

In the six months that followed, Swissnex organized visits of Swiss professors to major Chinese universities and received Swiss delegations representing various interest groups, including the Association of Swiss Science Journalists. Swissnex also initiated creative projects to promote the exchange of ideas and experience to help foster bilateral cooperation. Other major projects are in development.

This year, four new members will be joining the staff of Swissnex Shanghai:
• Our new director Mrs. Flavia Schlegel
• A deputy director covering Swiss universities who will be responsible for the Sino-Swiss bilateral cooperation programme
• A representative of the Commission for Technology and Innovation (CTI) who will cover universities with applied science and professional education departments
• A new event and PR manager

Also being temporarily added to the team is a consultant from Switzerland who will conduct a feasibility study for a Swiss interdisciplinary centre to be established at a well-known Chinese university in Shanghai.

Why we are in China and why Shanghai

China has a large pool of well-educated workers. With 2000 universities and four to five million fresh graduates, the country seems to have an inexhaustible supply of top talents who are potential partners for Swiss scientists. China's R&D investment is expanding at a rate that offers unprecedented new possibilities within a rapidly diversifying portfolio. In 2006, spending on research in China reached 1.4% of GDP, up from 0.7% in 1998. As a result, the productivity of R&D activities has also risen rapidly. The number of new patents and patent applications has multiplied by nearly 600% in the past 10 years.

In a recent survey, Swiss universities were asked to comment on their future priorities in the field of international relations. China was clearly the number one choice of the newly-christened Swiss universities of applied science. Considering the fact that 90% of all research done in China is applied research, the potential for fruitful and rewarding cooperation between Swiss universities and Chinese counterparts is considerable.

Swissnex was established in Shanghai because of the city's exceptional dynamism and abundant resources. Shanghai is recognized worldwide as the centre of commerce and finance in China. It has been called the global city of the future and the centrepiece of the world's fastest-growing economy. Shanghai has become a nexus for artists, scientists, businessmen and politicians - a melting pot of new styles and a fusion of cultures.

Shanghai's municipal government strongly supports R&D activities by offering grants to universities and to research institutes in addition to those provided by other national funding agencies. From 2001 to 2006, the total amount of grants for encouraging basic research increased 300%, according to data from the Science and Technology Commission of Shanghai Municipality.

Shanghai and its environs are the home to four out of the top ten universities in China, attracting top talents from all over the country. The city also hosts a large community of returnees that have
in the field of civil engineering and architecture. The exhibition was an assemblage of the exceptionally creative graduate work of Swiss students from the Swiss Federal Institute of Technology in Lausanne, the Swiss Federal Institute of Technology in Zurich (ETHZ), and the University of Lugano, providing visitors with a view of the landscape of contemporary Swiss education in the fields of civil engineering and architecture.

“Play Time: Art Meets Technology” was conceived and organized by Swissnex Shanghai as part of the 2008 Shanghai Science and Art Exposition held by the Shanghai Science and Technology Association. Researchers and professors from the Computer Science Department of ETHZ created various devices that provided visitors a fun experience of advanced technology and edgy art from Switzerland.

In the coming months leading up to 2010, Swissnex will organize a series of “Swiss Science Days” on subjects closely linked to the main theme of the Shanghai World Expo 2010 - “Better city better life” - including urbanism, sustainable development, environment, modern transportation systems, clean energy, and sociological and psychological constraints in rapidly growing cities. The first workshop of the series will take place in October of this year with the participation of Swiss and Chinese scientists.

**RESEARCH INTELLIGENCE.** Gaining and providing research intelligence on trends and on the current focus and strengths of Chinese universities is another important component of the Swissnex mission with an aim to affording a clearer picture of the Chinese system of education and research.

An information database composed mainly of public information on Chinese universities and research institutes is being built to facilitate access to basic data such as Masters and Ph.D. programme opportunities, key laboratories, national ranking in particular fields, etc.

An intelligence network called “Swissnex Scouts”, that will provide more in-depth knowledge of research trends in China is being developed. A group of top-level Chinese experts in areas of high interest to Switzerland will be identified and invited to become the main contributors of scientific input in their areas of expertise. They will also help us to identify the best talents and to conduct reference checks of Chinese scientists and institutions that wish to become partners of Swiss counterparts in bilateral cooperation.

**The Sino-Swiss Science and Technology Cooperation Programme (SSSTC)**

The SSSTC programme was established in 2003 following the signing of a memorandum of understanding between the SER and the Chinese Ministry of Science and Technology (MOST). The programme is one of the main China initiatives launched by the State Secretary of Education and is led by ETHZ together with the University of Zurich. The SSSTC programme encourages long-term partnerships and provides additional opportunities for funding of collaboration between Swiss and Chinese research institutions. Swissnex Shanghai serves as the project coordinator in China, helping to work out solutions with various Chinese ministries and authorities to implement programmes in China.

Following the successful completion of its pilot phase (2004-2007), the aim of the current phase of the programme (2008-2011) is to further encourage bilateral cooperation based on the principle of reciprocity. It also aims to further strengthen relationships with
other Chinese authorities in education and research, such as the Ministry of Education and the Chinese Academy of Science, and to work closely with national funding agencies such as MOST and the National Natural Science Foundation. In the current phase of the programme, four areas of priority and common interest have been identified for the conduct of joint research projects and institutional partnerships: Life Science, Material Science, Environmental Protection and Medicine.

In the SSSSTC programme, Swissnex is actively contributing to clarifying the structure of the organization of various Chinese authorities that are in charge of education and research, national priority programmes, main funding sources and respective application procedures and deadlines. Swissnex also acts as a facilitator in the establishment of bilateral projects, matching scientists and institutions on both sides.

What we offer now and for the future

INTERNSHIP AND SHORT-TERM PROJECT. Swissnex Shanghai employs Swiss experts on a permanent basis, as do its predecessors in the US and in Singapore. But Swissnex also offers working space to Swiss scholars spending short periods in China. In its effort to build a bridge to China in the fields of science, technology and culture, Swissnex offers a number of opportunities for Swiss students and faculty to participate in short-term internships or to conduct projects mandated by Swissnex. The internships will be available in areas of common interest and priority to Swissnex Shanghai as well as to the universities/individuals. The term of project mandates will be defined by Swissnex in response to its current and strategic needs. A typical example of an internship/mandate would be to conduct a feasibility study for further collaboration with a particular Chinese partner (i.e., to evaluate opportunities and risks, alternatives, costs, legal structure, etc).

It is also foreseeable in the mid to long term, that Swissnex will help to create internship opportunities at companies here in China for Swiss students willing to come for short periods of China immersion. Swissnex will explore its network of R&D centres at Swiss companies and identify those willing to provide internships. Once an agreement has been reached between a company and Swissnex, interested parties will be invited to submit applications directly to that company.

BRANDING AND ACTIVE COMMUNICATION. Swissnex will also offer advisory services on branding and active communication to Swiss universities. Using its knowledge of the local environment and its network of service providers Swissnex will advise mandating universities and institutes on the organisation of promotional tours and participation in educational fairs in China, it will prepare marketing materials in the local language and will place feature articles in local scientific magazines and newspapers, etc.

R&D, TECHNOLOGY TRANSFER AND PROFESSIONAL EDUCATION. With the arrival of a representative of CTI to join its staff, R&D, technology transfer and professional education will soon become one of the key activities of Swissnex Shanghai. Swissnex will leverage the Swiss tradition of innovation and the expertise of Swiss SMEs and universities of applied science, along with its excellent reputation for professional education and its highly qualified workforce to more broadly promote Switzerland’s education and research systems.

ADVISORY ON POSTGRADUATE STUDY. In addition to its main activities, promotions and projects, Swissnex Shanghai will advise on postgraduate study in Switzerland. Swissnex will provide information regarding Swiss universities to Chinese students or scholars ready to go to Switzerland for advanced study or research, will help recruit Chinese students, will organize summer courses or complementary programmes in China so that Swiss students may become better acquainted with Chinese culture and business practices.

Opportunities and Challenges

During this extraordinary time in history when China is attracting the attention of the world in terms of its economic, scientific and social development, Swissnex is receiving support from the Swiss government, from universities and certainly from the private sector. More and more Swiss scientists are expressing their eagerness to collaborate with Chinese counterparts and to come to China to experience firsthand the rapid pace of research and development and to reap the benefit of China’s huge reserve of hard working, talented students.

The concept of Swissnex is quite original and has been met with great interest on the Chinese side. It also demonstrates the long-term commitment of the Swiss government to contributing to Sino-Swiss bilateral exchange, and to bridging the cultural distance between the two communities of scientists and students.

Inspired by its ambitious goals, Swissnex will encounter and overcome challenges as it moves forward. In the vastness of China there already exist organizations whose purpose it is to promote technology and cultural exchange. It is an environment within which competition for top talent is intensifying. In such an atmosphere charged with creativity and adventure Swissnex, too, must remain creative and adventurous in order to raise its visibility and to become known within the community of Chinese scientists. The calling of Swissnex Shanghai is not only to optimize its limited resources while working within its organizational limitations to achieve its goals but to venture beyond Shanghai in order to connect with the top quality universities and research institutes in the great hinterland of China as well.

In a speech at the Global Engineering Excellence Conference, MIT President Charles Vest was quoted as saying, “The global engineer must be technically adept, broadly knowledgeable, innovative and entrepreneurial, commercially savvy, multilingual, culturally aware, able to understand world markets, professionally flexible and mobile”. As the representative of Swiss universities in China, Swissnex will employ all the means at its disposal to contribute to the development of the rapidly-expanding new community of global engineers, scientists, lawyers and economists.

Official opening

Official opening of Swissnex Shanghai will take place on August 7, 2008, at the presence of the President of Switzerland, Federal Councilor Pascal Couchepin and the State Secretary for Education and Research Mauro Dell’Ambrogio. Various Chinese ministries in charge of education and research, leaders of key universities and research institutes, as well as local Swiss business communities will also join the party.
描绘中瑞科技文化交流的未来

瑞士联邦政府驻华科学中心的使命

作者：左岗，Swissnex Shanghai副主任，瑞士上海总领馆科技领事

瑞士是按人口比例获诺贝尔奖人数最高的国家之一，以其优秀的创新能力和高度的科研水准享誉世界。瑞士大学发表的学术论文的影响度及其科研设施都一直位居世界前列。

在中国，更多为人熟知的是瑞士的高质量服务和各类创新型产品。它的主要科学实力－世界一流的科研人员，科研及教育体系－却并不为很多中国人所了解。

像许多选择在中国创业的瑞士企业一样，Swissnex Shanghai，瑞士联邦政府驻华科学中心，已成为瑞士联邦政府在华投资的领军者。Swissnex Shanghai由瑞士政府投资，旨在为瑞士和中国的企业、研究机构和政府机构提供一个合作交流的平台。

Swissnex ShangHai

由瑞士前教育研究国务秘书 Charles Kleiber 先生委任，前瑞士国家科研基金会主任何海德博士于 2006 年初来到上海创建 Swissnex Shanghai。何海德博士在与瑞士驻华使馆及驻沪领事馆保持紧密联系的同时，对中国教育及科研体系进行着大量的实地考察，并构建了中国教育科研主要联络人网络的框架。

Swissnex Shanghai 2007 年正式成立，其使命是促进中瑞两国在科学、教育和文化领域的交流合作。Swissnex Shanghai 位于中国上海，是一个以专业、创新为特点的国际交流平台，旨在将瑞士的先进科技和文化带入中国，同时将中国的创新成果推广到全球。

Swissnex Shanghai 在上海的工作人员包括：

- Swissnex Shanghai 的创办人及执行总裁 Charles Kleiber 先生
- Swissnex Shanghai 的运营总监 Flavia Schlegel 女士
- 负责瑞士大学及中瑞科研合作项目的副主任
- 负责中国科技与教育合作的主任
- 负责中国艺术与文化合作的主任

Swissnex Shanghai 旨在通过各种活动和项目，促进中瑞之间的文化交流和科技合作，为两国间的友好关系作出贡献。
封面故事 Cover Story

Swissnex上海团队

我们为何来到中国？为何选址上海？
中国拥有2000多所大学，4-5百万大学生，受过良好教育的劳力资源庞大，对瑞士科研人员来说，这无疑是一个能够提供一流人才和潜在合作伙伴的无尽的资源宝库。
中国每年的研发投入都以惊人的速度增长，2006年的研发支出从1998年的国内生产总值的0.7%上升到1.4%，因此，研发活动也迅速的增加。专利申请和专利的批准的数量在10年内已经增加了600%。

最近的一项调查显示，瑞士大学在被问及他们今后在国际关系领域作贡献的高校的人数，中国第一。中国吸引在美国应用科学大学的人数。事实上，90%在中国进行的研究是应用研究，与此与中国研究的工作者的合作，占长差距，是势在必行的。

上海，是一座有着特殊魅力和资源的城市，这也正是Swissnex Shanghai选址于此的原因，上海被公认为中国最重要的商业和金融中心，并被誉为全球以及经济发展最快速的国家，来自各方的艺术家、科学家、商人和政治家济济一堂，大展身手，各类新兴学派和文化融合于一体。

除了国家科研基金会与大学和研究机构一定的资助以外，上海市政府也给与了支持和帮助。据上海市科学技术委员会数据显示，自2001年到2006年，鼓励基础研究的拨款额已增加了300%。

中国前10强高等学府，其中4所分别地处上海及其周边地区，吸引来自全国各地的人才，也有从国外著名学府学成归来归来的学者并带来全新的研究思路，方式和方法，以进一步促进科学及文化的交流。

我们做些什么
Swissnex Shanghai将通过一系列措施以达到其既定的目标。

建立人脉 社交是与本地精英群体获得联络的最重要的方式，这亦是最有效的同科研、商务以及机构的决策者们取得联系的方法。
融入中国社会意味着需要谦虚和灵活，对对方的活动保持极大的兴趣并设法了解他们的文化，他们的思维方式和他们的原动力。

同时也意味着需要有热情，愿意花时间去了解别人，建立关系。Swissnex Shanghai尽力与在瑞士大学毕业的中国校友以及其他一些曾在瑞士高等教育机构学习的群体保持联络，在这些人群中，无论是中国还是来自其他国家的公民，他们都了解瑞士和中国文化，并且对瑞士有着特殊的感情。他们是所当然的瑞士教育和科研系统的参照者，他们也是Swissnex Shanghai与其他机构联络，交流的可靠的力量。这对Swissnex Shanghai履行其使命是至关重要的。

举行活动和研讨会 这是一种有效的手段来简短瑞士的科研知识和创新。主题和重点通常是以尖端技术和创新为主，或综合自然科学与社会科学的跨学科领域。目标群体是高层次的科学家和专业人士的有潜质的学生，或者也可能是一般的人群体。

在2007年4月，Swissnex Shanghai联手与当土木工程和建筑学科中国排名第一的同济大学在上海城市规划馆举办了一次“瑞士创新建筑展览”。此展览结合了瑞士洛桑联邦理工大学，苏黎世联邦理工学院以及卢加诺大学学生的毕业作品，展示了瑞士在教育领域突出的一面。

“玩乐时间：艺术与科技的完美结合”是由Swissnex Shanghai参与组织的另一个大型活动。“玩了时间”在上海科学技术和协会举办的“2008上海科技艺术展”上展出。苏黎世联邦理工学院计算机系的研究员和教授们通过多种电子产品以及与参观者互动的方式展示了瑞士先进的科学技术，同时也使参观者体验到科技带来的艺术享受和无穷的乐趣。

在今后几个月，直到2010年，Swissnex Shanghai将以2010年上海世博会主题“城市让生活更美好”为主旋律，举办一系列与学科紧密联系的“瑞士科学日”，如城市化，可持续发展，环境，现代交通或输系统，清洁能源，应对城市迅速发展的社会心理等。今年10月将举行这一系列的研讨会，瑞士和中国的科研人员将会共同参与。

科研智能 科研智能指的是提供有关中国大学目前的学术动态和重点研究的信息，这也是Swissnex Shanghai另一项重要的任务。从这两方面的切入，旨在使瑞科人员更清晰地了解中国的教育和科研体系，了解有关科学领域的最新发展。
Swissnex正在建设中的一个数据库，主要提供中国大学和科研机构的公共数据，如研究生和博士生课程提供，重点实验室，高等学府按学科排名等等。

另一个以“swissnex Scouts”命名的资源信息采集项目，作为数据库的延伸。Swissnex将通过一组资深中国专家，
封面故事

了解在其擅长领域里的科技动态。他们也将帮助我们寻找优秀的人才，为中国科研人员及机构成为瑞士科研机构潜在的合作伙伴给予意见或建议。

中瑞科技合作项目

中瑞科技合作项目是在 2003 年设立，之后瑞士教育研究秘书处与中国科技部签署了一项谅解备忘录。它是瑞士国家教育研究秘书处旗下的一个主要项目，由苏黎世联邦理工学院与同苏黎世大学共同合作。中瑞科技合作项目鼓励中瑞科研机构进行长期合作并为其提供资金帮助。Swissnex Shanghai 作为此项目中的中国协调人员旨在与中国教育部及各地方政府机构进行协调沟通，使此项目在中国得以顺利贯彻执行。

经过 2004-2007 年试点工作，在今后的四年（2008-2011 年）打算进一一步在互利互惠的基础上鼓励双边合作，其目的还要进一步加强与中瑞教育研究机构，如中国教育部和中国科学院的联系，以及密切合作开展和研究自然科学基金委员会等机构的合作。此计划的第二阶段，以生命科学，材料科学，环保和医药为主的四个项目将成为中瑞合作的首要选择。

为了实现这个计划，Swissnex Shanghai 积极主动与中国各教育科研机构保持联系，密切关注国家重点项目，主要资金来源以及科研项目申请和终止期限。Swissnex Shanghai 还将根据中瑞双方科研者及机构的要求帮助创建双边合作项目。

我们可以在目前或将来提供什么样的服务

提供短期实习和项目管理机会 与美国和新加坡的 Swissnex Shanghai 一样，Swissnex Shanghai 亦邀瑞士专家长期任职，也为短期来华的瑞士学者提供工作平台。同时为两国在科技文化交流方面牵线搭桥，由选择的向瑞士大学提供短期实习和项目管理机会。实习内容将根据 Swissnex Shanghai 及大学或个人的实际需要确定。短期项目将符合 Swissnex Shanghai 阶段性、战略性需求。目前，一个非常典型的实习/项目委托例就是对 Swissnex Shanghai 与一中国合作方之间为一项校际合作项目就风险评估，成本控制以及法律监管等一切问题进行可行性研究。

从中长期来看，Swissnex Shanghai 将通过寻找能提供瑞士实习生实习的中国公司和驻华公司，同时 Swissnex Shanghai 将进一步加强与瑞士在华研发中心的合作，以便寻找到更多的实习机会，以决定在 Swissnex Shanghai 与研究中心达成协议的基础上，以后将直接接受实习申请。

帮助建立大学品牌 Swissnex Shanghai 将有针对性提升瑞士大学在中国学术领域内的认知度，并将凭借对本地区的深入了解建立起资源网络，为瑞士大学联合相关大学与研究所制定教育科研推