



Science, Technology and Education News from China

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Please note that the previous newsletters can be downloaded from the website of the Embassy of Switzerland in China: www.eda.admin.ch/beijing¹. To subscribe/unsubscribe or send us your comments, please send an email with the corresponding subject to chenchen.liu@eda.admin.ch.

Introduction

In the eve of the opening of the 2010 Shanghai Expo – which will be covered in the May 2010 issue – the newsletter of this month will start with an introduction of South University of Science and Technology of China as a testing ground for China's higher education reform. Also in this month, the Ministry of Science and Technology made public its budget for 2010. April also sees China's development in bio-tech, solar farm and lunar probe projects.

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¹ Please click on the blue texts to activate the hyperlinks to either email addresses or related websites.



Policy

South University of Science and Technology of China as a Testing Ground

Located in Shenzhen, South University of Science and Technology of China (SUSTC), although **still in planning**, is already widely considered a pioneer in China's reform on higher education. Currently the university only exists on paperworks, and has nothing more than a campus that is still under construction, a president and a small team of staff. But SUSTC **carries the expectation to be a testing ground for solutions to many widely-criticized problems in university administration in China**, such as bureaucracy, limited autonomy, single admission standard, etc.

According to the development plan, SUSTC will be the first Chinese university to be completely **without administrative rankings**. The president, Professor ZHU Shiqing, former president of China University of Science and Technology, is recommended to the SUSTC President Recruiting Committee by a head-hunting agency. The **selection of president posed as a change of the current practice**, where university presidents are directly assigned by the Ministry of Education. In addition, none of the SUSTC administrative officials, including the president, can be in anyway involved in research or teaching. The professors and researchers, recruited directly by the **University Academic Committee** which consists of fellow professors after thorough evaluation, could therefore expect more equality and transparency when competing for project funds to support their research.

With such kind of a **new university governance system**, the goal of SUSTC is to attract young researchers all over the world and to create a supportive academic environment. On this basis, the next step would be to **develop into a research university in science and technology disciplines**. The university stated clearly that it has no plan to develop into a comprehensive university but would rather stay focused on its strongest S&T areas.

Currently the university is directly under and **financed by Shenzhen Municipal Government** as a public institution. In the future the university will try to gain even more independence by applying for a legal person status. The funding of the university also comes from **industries** in the form of scholarships or project funds. According to the website of SUSTC, the university is trying to admit the first group of students, a total of 50, in the 2010 autumn semester. All students will receive a full scholarship.

The ambition is to admit 50 high school students who have completed 2 years of high school education². The **recruiting** is done first through high school presidents' recommendation, followed by individual examination and an interview by the President of SUSTC himself. The 50 students are to be divided into 2 classes of 25 – an exceptionally small number for science and technology universities in China! – and will receive 2 years of training in basic science and technology disciplines. Then the students are free to choose a major of their preference for the remaining years of their university education. It has been emphasized by SUSTC that the selection process will give a **special priority to students from rural China**.

Shenzhen has always been at the frontier of China's reform, be it in economy, society or education. With the new education development plan on the way, the **founding of SUSTC responds to China's ambition to see the emergence of a few internationally-renowned research universities** in the near future. The Agenda 2020, the National Medium and Long Term Education Reform and Development Plan, which is still under review by the government, is expected to provide the ground for this kind of new approaches.

² The common practice in Chinese high schools is to finish all the required courses within the first two years and dedicate the entire third year to the preparation of College Entrance Examination. Therefore usually by the end of the second year, the students have actually finished their high-school studies.



News

1. **The Ministry of Science and Technology Unveils its budget for 2010**

(MoST, 01-04-10)

In April 2010, four ministries have made public their annual budgets for 2010 after the central government pledged to tell taxpayers how their money is spent.

The Ministry of Finance (MOF), the Ministry of Housing and Urban-Rural Development (MOHURD) and the Ministry of Science and Technology (MOST) posted their 2010 annual budgets on their websites on Wednesday, a day after the Ministry of Land and Resources (MLR) made its budget public.

“This is the first time ministries have made public their budgets and it is usual that it is not exactly what the public expected. We will make more detailed budgets to the public step by step,” said Lai Wensheng, director of the MLR’s finance department.

According to the Ministry of Science and Technology’s website, an overall budget of 21 billion yuan is allocated for 2010, which is an increase of 2.6% compared to last year. Among the 21 billion, the largest expenses include funding for research in applied sciences (7.65 billion), technology research and development (5.27 billion) and basic research (3.2 billion).

2. **EXPO Technology Exhibition Tour Comes to Xi’an and Chongqing**

(MoST, 02-04-2010)

Shanghai EXPO Technology Exhibition Tour, jointly organized by the Ministry of Science and Technology and Shanghai Municipal Government successfully unveiled in Xi’an on April 2 and had another stop in Chongqing on April 14.

The exhibition, which takes up 400 m², is divided into six categories: Introduction, Planning and Construction, Green Energy and Emission Deduction, Environment and Ecology, Information and Services, Security and Health. Focusing on technologies and case studies, the exhibition demonstrates the results of five years of implementation of “Shanghai EXPO Technology Initiative”, featuring the “Better City, Better Life” theme of Shanghai EXPO.



3. **Debut of National S&T Infrastructure Center during CHTF**

(MoST, 08-04-2010)

The National Science and Technology Infrastructure Center (NSTIC) made its debut at the 9th Chongqing China High-Tech Fair (CHTF) from April 8 to April 11.

NSTIC exhibited 12 shared platforms, including network for sharing science and technology resources, survey on national key science and technology resources, platform standardization, large research instruments, database, science and technology literature and web environment of science and technology. CPC Polit-Bureau Member and State Councilor Liu Yandong and Chongqing Municipality Party Chief Bo Xilai, Vice Chairman of NPC Standing Committee Chen Changzhi, and Vice Chairman of CPPCC Li Jinhua visited the exhibition.



CHTF is co-organized by the Ministry of Science and Technology, the Ministry of Information and Industry, Chinese Academy of Sciences, Chinese Academy of Engineering, China Association for Inventions and Chongqing Municipal Government. This year's exhibition covers 6 areas: new energy, telecommunication, manufacturing, energy efficiency, modern logistics and medical sciences. A total of 1,603 corporations participated in the exhibition, a 3% growth compared to last year. During the exhibition, a total of 495 cooperative project agreements were signed with a total contract amount of CNY 34.6 billion yuan. On the occasion, 13 ST associations or departments from Western Chinese region signed cooperation agreement with each other.

4. **China to Launch 2nd Lunar Probe this Year**

(CAS, 14-04-2010)

China will push ahead with its lunar exploration program despite the United States' decision to suspend its return to the moon, a senior space exploration scientist has said.

"China should not slow down its pace of lunar exploration even if other countries change their plans," said Ye Peijian, chief designer of the nation's first lunar probe, Chang'e-1.

The country plans to launch its second lunar probe, Chang'e-2, in the latter half of this year as well as send a lunar lander and rover by 2013, Ye said.

[...]

Billions of dollars will be spent on new commercial spacecraft that could carry U.S. astronauts into low Earth orbit, on technology development, and extending the life of the International Space Station, media have reported. The U.S. investment in new technology is expected to lay the foundation to support effective and affordable journeys to the moon and eventually to Mars.

Ye conceded the refocused efforts of the U.S. on Mars and Earth observation do represent a future trend. The U.S. could postpone moon-landing plans because "they made it to the moon some 40 years ago and still hold the technological advantage", he said.

China stands a better chance of joining more international projects in the field with a smaller technological gap, he said. The country should also explore Mars independently, Ye said.

5. **China to Catching up with Europe on Solar Farms**

(SCMP, 19-04-2010)

According to a Merrill Lynch report, China, India, Japan and South Korea are together projected to have 6,300 megawatts (MW) of solar panel installations by 2012, up almost tenfold from 650 MW last year. China alone is forecast to show 20-fold growth in installations to 4,000 MW, while the US and Canada are projected to see their combined solar panel installations surge eightfold to 4,400 MW from 550 MW. By contrast, installations in the main European markets of Germany, Spain, Italy, Greece, Belgium and the Czech Republic are forecast to rise only 27.4 per cent to 5,350 MW from 4,200 MW. Europe, led by Germany, has been the world's most progressive region in launching incentives to drive clean energy consumption, but other regions are catching up fast. In the US, the Department of Energy has set a goal for the nation to generate 10-15 per cent of its energy from solar sources by 2030. [...]

China and India, both with ambitious solar farm expansion plans, are in advanced stages of formulating nationwide feed-in tariffs to drive consumption of the clean energy. Jiangsu province, China's biggest producer of solar panel parts and raw materials, became the first region to launch feed-in tariffs in the middle of last year to create a domestic market for its products amid a global demand slump for solar panels due to a dearth of credit. With solar panel sales taking off in North America and the Asia-Pacific, panel-makers are rapidly globalising their distribution efforts, which require a lot of investment in forging relationships with distributors and strategic partners. Jiangsu-based Suntech Power Holdings, the world's largest crystalline silicon solar panel maker, has set up a manufacturing plant in Arizona in the US to



enhance its credibility as a supplier. [...] The allure of the US market's potential is so big that GCL-Poly Energy Holdings, China's largest producer of upstream raw material polysilicon, is seeking to expand into solar farm development overseas, with the US being a key target. [...]

6. **China Emerges as the Fastest-growing Bio-tech Market**

(Kooperation-international.de, 01-04-2010)

Following a comprehensive analysis of global biotechnology companies, Novumed Life Science Consulting has recently published an exclusive study for therapeutic biotechnology companies in seven countries in the Asia-Pacific region. According to the study, China currently stands fifth in the world's largest biotech facilities after the United States, Britain, Germany and Australia. In recent years, government incentives and low wage costs, combined with well-trained staff, have resulted in an increase of small innovative biotechnology companies. This is another example which shows that China is making great strides from a manufacturing to an innovation center.

China has long been an attractive pharma market. First, because the population is of 1.3 billion people and represents a huge buying potential. Especially the rising middle class has the purchasing power to afford Western medicines. Second, because the low labor costs as well as outsourcing of manufacturing, research and services have made China increasingly attractive.

<http://www.kooperation-international.de/countries/themes/nc/info/detail/data/47155/>

7. **CAS Establishes Key Laboratory of Regional Sustainable Development Modeling in Beijing**

(CAS, 21-04-2010)

Key Laboratory of Regional Sustainable Development Modeling was established by Chinese Academic Sciences at the Institute of Geographic Sciences and Natural Resources Research (IGSNRR) on April 9, 2010, in Beijing.

The Key Laboratory of Regional Sustainable Development Modeling focuses on study of national and regional sustainable development. It provides a platform for interdisciplinary research among social and natural sciences. The researchers will focus on the study of basic theories, establishment of data platform, application of quantitative modeling approaches, and presentation aided by modern visualization techniques.

Collaboration with physical geography, resources and ecological science, mathematics and computational science, economics and social science will be strengthened. The Laboratory aims to play a role as the "think tank" of Chinese governments.

The laboratory mainly consists of researchers at IGSNRR. Prof. FAN Jie is elected as the director of the Lab. Academician LU Dadao is the director of the Academic Commission.



Events (May– June 2010)

May 2010

**Int'l Solar Energy & PV Projects
(Shanghai) Exhibition, SNEC Int'l
Solar and PC Conference**

Date: May 5th
Place: Shanghai
Contact: Shanghai S&T Development &
Exchange Centre

**2010 China (Beijing) Int'l Mining &
Hosting Handling Machinery
Exhibition**

Date: May 10th
Place: Beijing
Contact: Chinese Mechanical
Engineering Soci.

**XIV Int'l Conference on Calorimetry in
High Energy Physics**

Date: May 10th
Place: Beijing
Contact: CAS

**The 2010 Int'l Symposium on Financial
Info. Processing**

Date: May 18th
Place: Beijing
Contact: 010-68597749

**2010 China Int'l Automobile Science
and Tech. Exhibition**

Date: May 21st
Place: Wuhan
Contact: China National Scientific
Instruments & Material Import/Export
Corp.

**2010 (Guangzhou) Exhibition and
Conference on Instrumental Analysis
and Biotechnology**

Date: May 24th
Place: Guangzhou
Contact: Guangdong Foreign S&T
Exchange Centre

The 15th China Int'l Welding & Cutting Fair

Date: May 27th
Place: Beijing
Contact: Chinese Mechanical Engineering
Soci.

**2010 China Int'l Gas Tech. Equi.
Exhibition**

Date: May
Place: Beijing
Contact: China Gas Association

**The 4th China (Beijing) Int'l Exhibition and
Symposium on Police and Anti Terrorism
Tech. and Equi.**

Date: May
Place: Beijing
Contact: China Asso. For Sci. and Tech.
Beijing Municipal Public Security Bureau

**The 3rd Int'l Conference on
Computational Sciences and
Optimization**

Date: May 28th
Place: Beijing
Contact: Academy of Mathematics and
Systems Sci., CAS

**SKLRB: Symposia: Frontiers
in Perimplantation Biology**

Date: May
Place: Beijing
Contact: Inst. of Zoology. CAS

The International Science & Art Exhibition

Date: May 26 to May 31
Place: Pudong Exhibition Center, Shanghai
Contact: Swissnex China



June 2010

2nd China Green Building Summit

Date: June 3rd-4th

Place: Beijing

Contact: www.chinagreenbuilding.com

Nineth International Symposium on Polymer Physics

Date: June 6th

Place: Jinan

Contact: Institute of Chemistry, CAS

2010 Power Transmission and Automatic Control Exhibition

Date: June 10th

Place: Beijing

Contact: China Council for the Promotion of International Trade, Machinery Sub-Council

Shanghai (EXPO 2010)_International Architectural Forum

Date: June 18th

Place: Shanghai

Contact: China World Architecture Construction Federation

International Symposium on Innovation Policy and Sustainable Development

Date: June 23rd

Place: Beijing

Contact: Institute of Policy and Management, CAS

China Bio Partnering Forum

Date: June 23rd-24th

Place: Suzhou

Contact: China Bio® and EBD Group

2010 IEEE International Conference on Information and Electronics Engineering

Date: June 22nd-24th

Place: Shanghai

Contact: www.iciee.org

8th International Conference on Applied Cryptography and Network Security

Date: June 22nd-25th

Place: Beijing

Contact: Chinese Academy of Engineering