



# Science, Technology and Education News from China

## Number 54 – December 2008

Please note that the previous newsletters can be downloaded from the website of the Embassy of Switzerland in China: [www.eda.admin.ch/beijing](http://www.eda.admin.ch/beijing)<sup>1</sup>. To subscribe/unsubscribe or send us your comments, please send an email with the corresponding subject to [shu.zhou@eda.admin.ch](mailto:shu.zhou@eda.admin.ch).

### Introduction

This month's edition of our newsletter covers the Chinese Premier's urge to scientists to help fight the global financial crisis. Earlier on, Premier Wen Jiabao also called for an education reform in China. The Ministry of Health is under pressure to produce the revised healthcare reform plan in January. Along with more news on S & T development in China, we have decided to inbuilt new contents to our newsletter and added S & T Policies, Institutions, and upcoming Events. We hope that you will continue to enjoy reading our S & T news from China and we wish you a bullish start of 2009!

### Contents

Policies.....	2
News .....	2
1. Premier Unveils 12-Year Training Plan to Counter Financial Crisis .....	2
2. Premier Urges Scientists to Help Fight Global Financial Crisis.....	2
3. Xu Guanhua Lectures on Global Change.....	2
4. Spin Configuration and Superexchange Mechanism in Molecular Magnets Observed .....	3
5. China Starts Building World's Largest Radio Telescope .....	3
6. China's 1st Multi-Functional Road Detector Car.....	3
7. China Mulls National Security Scrutiny for Patent Applications.....	3
8. Blueprint for Medical Reform Set for Release .....	3
Institutions .....	4
Events .....	4

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



## **Policies**

The rise of China as a significant player in S&T and innovation will have important implications for the global knowledge and innovation system, as China will inevitably and increasingly become integrated in the global system of knowledge creation, diffusion and use. China will be able to make a positive contribution to global knowledge production and use and thus to addressing global challenges. However, this will also create competitive pressures and give rise to concerns and issues that must be dealt with appropriately. It is important that China's emergence not be viewed as a threat and the outcome as a zero-sum game.

The implementation of China's Medium- to Long- Term Strategic Plan for the Development of Science and Technology is the central priority of current S&T policy, which focuses primarily on achieving three strategic objectives:

- Building an innovation-based economy by fostering indigenous innovation capability.
- Fostering an enterprise-centred technology innovation system and enhancing the innovation capabilities of Chinese firms.
- Achieving major breakthroughs in targeted strategic areas of technological development and basic research.

[OECD Reviews of Innovation Policy: China](#)

## **News**

### **1. Premier Unveils 12-Year Training Plan to Counter Financial Crisis**

(SCMP, 05-01-2009)

Premier Wen Jiabao has called for the formulation of an education reform plan that will focus on improving rural education, vocational training and teachers' welfare, citing the global financial crisis as a call to arms to bolster education. The plan, which will span 2009 to 2020, must take into account the nation's evolving population structure, rural-urban wealth gap and rural-urban migration, and meet the talent requirements for industrialisation, urbanisation and modernisation, Mr Wen said in a speech delivered at an earlier education conference and published in today's People's Daily. He said planners must be prepared to shatter old mindsets and structures and be daring in exploring reforms in school management, pedagogy and assessment. "Education will take a prominent position as we seek to mitigate the impact of the global financial crisis on our economy," Mr Wen said. "Education has become the cornerstone of national development." [...] Rural areas face great difficulty finding qualified teachers because of low pay and the tendency among graduates to drift to the cities. [...]

### **2. Premier Urges Scientists to Help Fight Global Financial Crisis**

(CAS, 29-12-2008)

"Our confidence to face the global financial crisis should rely on science, knowledge and talented people," Chinese Premier WEN Jiabao said on Saturday, 28 December 2008, during his visit to the Beijing-based Zhongguancun Science Park, known as China's "Silicon Valley". [...] "The government has launched a series of measures to deal with the current global financial crisis, which gave greater importance to the power of knowledge, science and technology that have far-reaching effects." Wen said.

### **3. Xu Guanhua Lectures on Global Change**

(MOST, 26-12-2008)

On 11 December 2008, CAS academician XU Guanhua gave a lecture on research prospects of global change, organized by the Department of Basic Research of MOST and chaired by Vice Minister CAO Jianlin. XU proposed: 1) to give prominence to frontier research, to strengthen interdisciplinary development, and to attach importance to the mechanism of the interaction among earth layers, according to national ability and circumstances;



- 2) to avoid repetition of any disciplinary research by highlighting major issues in the socioeconomic development in China and those of common concern around the globe;
- 3) to strengthen current research on global change, including cultural influences, geo-system model, application of earth observation data, and global economics.

#### 4. Spin Configuration and Superexchange Mechanism in Molecular Magnets Observed

(NSFC, 24-12-2008)

Jointly supported by the National Natural Science Foundation, the Ministry of Science and Technology, and the Chinese Academy of Sciences, Ma Xucun's group in CAS Institute of Physics and Condensed Matter Physics National Lab, cooperated with Xue Qikun's research team in the Department of Physics of Tsinghua University, studied the superexchange mechanism in cobalt phthalocyanine (CoPc) thin films by using a low temperature scanning tunneling microscope. With high energy-resolution spin-flip associated inelastic electron tunneling spectroscopy, they explicitly identified the specific molecular orbital that mediate the superexchange interaction between molecules.

#### 5. China Starts Building World's Largest Radio Telescope

(CAST, 29-12-2008)

China officially started construction of a Five-hundred-meter Aperture Spherical Telescope (FAST), the largest in the world, in a remote southwest region on Friday, 26 December 2008. The dish-like telescope, as large as 30 football fields, will stand in a region of typical Karst depressions in Guizhou Province when it's done in 2013. The facility will greatly improve China's capacity for astronomical observation, according to the National Astronomical Observatory (NAO), the major developer of the program.

#### 6. China's 1st Multi-Functional Road Detector Car

(Chinaassist, 18-12-2008)



Photo taken on Dec. 11 shows the exterior of a multi-functional road detector car.

China's first multi-functional road detector car with its own intellectual property rights comes out recently, which cost Chinese scientists eight years to tackle technological difficulties.

#### 7. China Mulls National Security Scrutiny for Patent Applications

(Xinhua, 22-12-2008)

Chinese inventors who wish to apply patents for their innovations in foreign countries must first go through government scrutinies to find out if such innovations should be made national secrets, according to a draft amendment to the country's patent law.

#### 8. Blueprint for Medical Reform Set for Release

(South China Morning Post, 31-12-2008)

Beijing will release the long-awaited medical reform blueprint in January 2009 as the three-month public consultation period draws to a close. The blueprint attempts to overhaul the inefficient and extortionate health care system and make it accessible and affordable to the public. [...] Together with the overall blueprint, the government will release five supporting documents outlining reforms in medical insurance, affordable basic medicine, ensuring equal access to public health care, grass-roots health care provision and introducing reforms in public hospitals, according to



China News Service. Of the five areas, public hospital reform is a particular sticking point. Scholars are divided over whether the government should invest directly in hospitals or indirectly, through a comprehensive insurance plan. A draft was released in October after almost three years of bickering and horse trading among government ministries over how and where the government should use public health funds. [...] The government will continue to uphold the principle that most government funds should go to basic health care in rural areas and community clinics in cities and towns.

## **Institutions**

**Chinese Academy of Sciences (CAS)** - Headquartered in Beijing, it is the most authoritative academy and research centre for natural sciences in China. CAS exists on two levels. 1). Elected academy members have a significant consulting and advisory role for national S&T. 2). CAS manages 108 scientific research institutes, over 200 science and technology enterprises, and more than 20 supporting units including one university, one graduate school and five documentation and information centres. They are distributed over various parts of the country. CAS also has branches in Shanghai, Nanjing, Hefei, Changchun, Shenyang, Wuhan, Guangzhou, Chengdu, Kunming, Xi'an, Lanzhou and Xinjiang. CAS is one of the major partners of Switzerland within the framework of the Sino-Swiss-Science and Technology Cooperation (SSSTC).

## **Events**

(MOST, December 2008)

### **14<sup>th</sup> China International Education Exhibition Tour CIEET**

Date: February 28 – March 15, 2009

Place: Beijing – Xian – Shanghai – Nanjing – Guangzhou

- Education fair for institutions and countries from all over the world to present their education programs.
- For further details pls. contact Mrs. Christine Kyburz (Email to [Christine.Kyburz@eda.admin.ch](mailto:Christine.Kyburz@eda.admin.ch))

### **14<sup>th</sup> International IC Exhibition & Forum**

Date: 5 March 2009

Place: Beijing

- IC chips for household appliances and industrial equipment

### **China Fashion Week 2009**

Time: March 2009

Place: Beijing

- Organised by the Beijing Fashion Association

### **Dental South China Exposition 2009**

Time: March 2009

Place: Guangzhou

- Dental medical treatment exhibition, organized by the Guangdong Foreign S&T Exchange Centre

### **22<sup>nd</sup> China (Zhejiang) International Science, Education, Medical Equipment Supplies & Technical Exchange Exhibition**

Time: March 2009

Place: Hangzhou

- R&D, Manufacturing and Maintenance of Medical Instrument exhibition, organized by the Zhejiang Provincial S&T Department / Department of Health

### **EXPO BUILD China 2009**

Time: 31 March 2009

Place: Shanghai

- Building envelope, interiors, and surfaces