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Headline news

18TH CPC CONGRESS

Hu Jintao's Report: Implement the strategy of innovation-driven development

Scientific and technological innovation provides strategic support for raising the productive forces and boosting overall national strength, and we must give it top priority in overall national development. We should deepen reform of the system for managing science and technology, speed up the development of

the national innovation system and establish a system of technological innovation in which enterprises play the leading role, the market points the way and enterprises, universities and research institutes work together.

(Source: Beijing Review)

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Wen: Equal treatment, enhanced IPR

Premier Wen Jiabao assured foreign companies they will be given equal treatment to their Chinese counterparts when entering the nation's strategic emerging industries.

Wen made the remarks when meeting business representatives at the sixth World Economic Forum's Annual Meeting of the New Champions under way from Sept 11 to 13, 2012 in Tianjin.

Wen called for more cooperation with foreign companies that have cutting-edge technologies in such emerging

industries as electric vehicles, new materials, new energy, health and medicine.

He also promised to enhance protection of intellectual property rights and give equal treatment to foreign companies in government procurement.

IPR protection and equal treatment have been among the issues that most concern foreign companies doing business in China.

(Source: China Daily)

Minister Wan Gang Attends the 23rd TWAS General Meeting



On 18 September 2012, the 12th General Conference & 23rd General Meeting of the Academy of Sciences for the Developing World (TWAS) opened in Tianjin. Chinese President Hu Jintao attended the opening ceremony and delivered a keynote speech. More than 400 scientists from over 60 countries and regions attended the conference.

Minister Wan Gang spoke on behalf of the Chinese Ministry of Science and Technology in the opening ceremony. He introduced the decisions made at the

recently concluded national conference on scientific and technological innovation for deepening the reform of scientific and technological system and speeding up the building of a national innovation system. He said that China is the largest developing country in the world, and its success also represents the success of the entire developing world. China has contributed to the strengthening of R&D capability of developing countries, enhanced scientific and technological cooperation and promoted exchanges between businesses by such means as establishing scientific and technological partnerships, launching tripartite cooperation projects with international organizations, supporting joint research, technological training and demonstration programs and donating scientific research equipment. China stands ready to further enhance scientific and technological cooperation and share innovation experience and results with other developing countries, and help them enhance innovation capacity, reduce poverty, promote economic growth and improve people's

welfare.

Minister Wan also delivered a keynote speech in the forum on "scientific and technological innovation and economic growth" held after the opening ceremony. He said, China will base itself on reality in developing science and technology suited to its own national conditions to the benefit of its people. China will expand and enhance cooperation with other developing countries in all fields for the purpose of achieving common development. First, China will strengthen future-oriented scientific and technological cooperation with other developing countries, carry out scientific and technological cooperation with all other countries in agriculture, disease prevention and control, new energy, biology and marine development, and provide technical assistance in these areas. Second, China

will share its scientific and technological resources with other developing countries and open major R&D infrastructures at a faster pace. Third, China will strengthen strategic dialogue on scientific and technological innovation with other countries at both bilateral and regional levels to share experience of reform and innovation and enhance mutual trust and cooperation. Fourth, China will encourage its scientists to participate in the R&D programs of other developing countries and support the establishment of joint research centers in areas of shared interest. China also welcomes foreign scientists to participate in China's research programs and hopes to see more foreign students coming to study in China.

(Source: MOST)

S&T Management Information

MOST Launches China-ASEAN Science and Technology Partnership Program

On 22 September 2012, Minister Wan Gang and the science and technology ministers of the 10 ASEAN countries jointly launched the China-ASEAN Science and Technology Partnership Program in



Nanning. The partnership program aims to promote the scientific, technological and innovation cooperation between China, ASEAN and ASEAN member states and the sharing of experience in science and technology development, enhance the science and technology capacity of regional countries, support the "acceleration of economic growth, social progress and cultural development in the region", promote the integration between China and ASEAN in the field of science and technology, improve the welfare of Chinese and ASEAN peoples and contribute to the attainment of UN Millennium Development Goals. The partnership program includes such elements as the formulation

and management of national science and technology strategies and major science and technology programs, the development of scientific and technological development plans in key industries and plans for the building of science and technology parks and incubators, initiatives for supporting and encouraging innovation, entrepreneurship and cooperation between producers, universities and research institutes, science and technology statistics, science and technology evaluation and other aspects of science and technology policies and innovation management. It covers both areas of people's daily life, including agriculture, food, life science and health, disaster reduction and prevention, water resources, energy and the

environment, and high technology sectors such as equipment manufacturing, material science, information technology, space technology and application. During the launch ceremony, the Ministry of Science and Technology unveiled the first project under the partnership program - the joint development of the satellite data sharing platform. The project, which is based on the sharing and application of Chinese satellite data resources in ASEAN, will play a positive role in facilitating the crop yield estimation, environment surveillance, disaster prevention and control and urban management of ASEAN countries.

(Source: www.most.gov.cn)

MOST Signs Cooperation Agreement with MIIT to Support Technological Innovation of SMEs

On 29 September 2012, Vice Chairman of the National Committee of CPPCC and Minister of Science and Technology Wan Gang and Minister of Industry and Information Technology Miao Wei signed in Beijing the *Agreement on Cooperation between the Ministry of Science and Technology and the Ministry of Industry and Information Technology in Promoting Technological Innovation of SMEs*.

Minister Wan said at the signing ceremony that to deepen the reform of scientific and technological system and speed up the building of a national innovation system is the primary task for China's science and technology community in the immediate future. Focusing on this core objective, the following efforts shall be taken to support the technological innovation of SMEs: First, promote the concentration of innovation factors in SMEs by carrying out the national project on technological innovation. Second, boost the development of SME clusters and cultivate strategic emerging industries with the platform of science and technology parks. Third,

provide specialized services for the technological innovation endeavors of SMEs with the support of technological service platforms. Fourth, encourage R&D investment by SMEs and mobilize financial resources from non-governmental sources by tapping into the leveraging role of national science and technology programs and innovation policies. Fifth, broaden channels of investment and financing for SMEs and provide easier access to financial resources by making use of financial support for the development of science and technology.

Minister Wei said that the Ministry of Industry and Information Technology will vigorously promote technological innovation of SMEs, improve and implement the relevant policies and steps, strengthen the building of technological innovation system in which the business sector plays the leading role, and promote the application and commercialization of R&D outcomes.

(Source: Science and Technology Daily)

MOST Releases the Twelfth Five-Year Special Plan for Cloud Technology Development

To implement the *Outline of the National Program for Long- and Medium-term Scientific and Technological Development(2006-2020)*, the Ministry of Science and Technology drafted the *Twelfth Five-Year Special Plan for Cloud Technology Development*.

The "special plan" has set out the goal of promoting the application of information technology, steadily advancing IT application in economic and social development, and improving the operations of service industries, creating new models of services and raising the quality of public services with the support of information and internet

technologies. Given the fact that the cloud computing industry is not yet fully established at the global level, and the technological systems and standards are yet to be improved, China faces a window of opportunity for developing its own cloud industry based on the existing basis. The technological features and open source trend of cloud computing have also provided a sound opportunity for Chinese companies to acquire core technologies and achieve breakthroughs in certain areas.

(Source: www.most.gov.cn)

Scientific Research Progress and Achievements

China Invents Edwardsiella Tarda

The edwardsiella tarda project under the 863 program in the Eleventh Five-Year Plan period has passed the technological inspection of the Ministry of Science and Technology.

Edwardsiella tarda is a category-one pathogen harmful to many different types of marine species. The diseases caused by the pathogen include the red-head disease of marbled eels and the virulent ascitesosis disease of turbot. According to statistics, edwardsiella tarda-triggered diseases have already become the most dangerous risk to left-eye flounder and flatfish farmers in Shandong, inflicting heavy losses on the local aquatic industry every year. In fact, the danger posed by edwardsiella tarda to marine species is universal. Outside China, edwardsiella tarda-triggered diseases have also been reported in countries like Japan, the Republic of Korea, the United States, Germany, Italy and South

Africa.

The research of edwardsiella tarda vaccine was launched as part of the marine technology project of the 863 plan in 2008. After nearly four years of research, the project team has succeeded in inventing the two edwardsiella tarda vaccines, i.e. WED attenuated live vaccine and low virulent live vaccine. The test of the two vaccines shows an 80%+ protection rate of turbot four months after immunization. Now, the pre-clinic laboratory research and mid-stage test for the low virulent live vaccine has already completed. Stable procedures for production and quality inspection have been established and the application for clinic test has also been approved. There is a promising future for the application of edwardsiellatarda vaccine, which is the first live vaccine of marine fish bacteria approved for clinic test in China.

(Source: www.most.gov.cn)

China Makes the World's First Embedded CPU Bridge Tablet

Vimicro Corporation recently announced in Qingdao the launch of QingBridge 1, the world's first signal-extending single-bridge chip, with high level of integration and low power consumption. The chip is exclusively designed for the new-generation embedded CPU low power computing system. The launch has put China at the forefront of CPU bridge chip technologies and secured a greater say for "China-made chips" in the international market.

China owns full intellectual property of "QingBridge 1". It has extended the functions of CPU signal processing to the collection, processing and transmission of multimedia signals on TV, game and on-board systems. Compared with traditional CPU bridge chip, it features the extension of CPU signal processing function,

improved system integration, lower power consumption and expanded scope of application.

Having incorporated the video and audio signal preprocessing algorithm of the "Starlight Chinese Core Project", the bridge chip uses multiple array algorithm processing and provides a complete set of audio, video, wireless and somatic interfaces. It has passed the certification of the relevant international standards and started mass production.

Vimicro Corporation was founded by Mr. Deng Zhonghan, a member of the Chinese Academy of Engineering. It is the first Nasdaq-listed Chinese chip designer.

(Source: Science and Technology Daily)

Independently Designed Multi-Function Marine Research Ship Put to Use in China

"Science", an independently designed multi-function marine research ship, was put into use on 29 September in Qingdao. It marks a breakthrough in China's marine research capability and makes China one of the world's leading nations in marine research.

The ship is designed by the 708 research institute of China State Shipbuilding Corporation (CSSC) and built by Wuchang Shipbuilding Industry Company.

The building of the ship started in 2010. It has a gross tonnage of 4,711 tons, with 99.8 meters long, 17.8 meters wide and 8.9 meters deep, and a cruising radius of 15,000 nautical miles, an endurance of 60 days, a maximum speed of 15 knots and a capacity of 80 persons. "Science" is the most advanced multi-function marine research ship currently in service in China.

(Source: Science and Technology Daily)

International Scientific and Technological Cooperation

4,000 new firms established in Zhongguancun area

More than 4,000 new companies were established in Beijing's Zhongguancun National Innovation Demonstration Zone last year, the newspaper Beijing Business Today reported on Tuesday.

Zhongguancun-based companies that are listed on stock exchanges had a combined market capitalization of more than 1.3 trillion yuan (\$205 billion) by 2011 and owned more than 280 billion yuan worth of monetary assets, the paper said.

The Zhongguancun zone, which has been called China's Silicon Valley, is the cradle of many renowned Chinese companies, including Lenovo Group and Baidu Inc.

Beijing Business Today reported 223 companies in the Zhongguancun area are listed on stock exchanges and 79 of them are listed overseas.

(Source: China Daily)

Cooperation Projects and Channels

Introduction III of international scientific and technological cooperation bases Research Centre for Eco-Environmental Sciences (RCEES)

Founded in 1975, Research Centre for Eco-Environmental Sciences (RCEES), Chinese Academy of Sciences (CAS) is the first national comprehensive research Institution in the field of ecology, environmental sciences and technology in China. RCEES currently has 377 staff, including 3 fellows of the Academy of Sciences for the Developing World (TWAS), 3 academicians of Chinese Academy of Sciences (CAS), 4 academicians of Chinese Academy of Engineering (CAE), and 61 full Professors. As one of the CAS key doctoral cultivation bases, RCEES currently has 618 graduate students and 99 post-docs.

The main research fields in RCEES include environmental chemistry, environmental engineering, systems ecology and environmental biotechnology. RCEES mainly consists of State Key Laboratory of Environmental Chemistry and Eco-toxicology, State Key Laboratory of Environmental Aquatic Chemistry, State Key Laboratory of Urban and Regional Ecology, CAS Key Laboratory of Environmental Biotechnology, Department of Atmospheric Environmental Science, Department of Water Pollution Control Technology, Department of Soil Environmental Science, as well as Department of Environmental Nano-materials. There

are many academic organizations affiliated to RCEES, including Chinese Committee for SCOPE (Scientific Committee on Problems of Environment), Asian Office of Environmental Science & Technology (ES&T), China NFP of UNEP INFOTERRA, International Water Association (IWA) Beijing Office, Ecological Society of China, and so on. The pilot Laboratory of UNEP/GEF POPs Analysis Project was settled in RCEES.

Since its foundation, RCEES has won 146 academic awards from the country, CAS, provinces and ministries, including 16 National Natural Sciences Awards and National Science and Technology Progress Awards, which witnesses the significant contribution made by RCEES to the sustainable development of ecology and environment in China.

RCEES has established long-term academic exchanges, cooperation, joint institute and laboratories as well as graduate training initiatives with many countries such as Australia, U.S.A, Germany, Canada, Japan and so on.

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The 3rd Annual Conference on Chinese Stem Cell Research and the 5th Guangzhou International Conference on Stem Cell and Regenerative Medicine

Being considered as the first of the annual world's top ten scientific progress by the "Science" magazine in 1999, stem cell research has developed prosperously and become the most active and most influential areas in the life sciences and biomedical community. The Third Annual Conference on Chinese Stem Cell Research and the Fifth Guangzhou International Conference on Stem Cell and Regenerative Medicine is going to be held in Guangzhou on December

16-18, 2012.

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(Source: Chinese Academy of Sciences)