

Ministry of Science and Technology of the People's Republic of China

JOINT INNOVATION COMMON DEVELOPMENT

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Vice Minister of Science and Technology, China

2014.09.16



Ministry of Science and Technology of the People's Republic of China

- I. Scientific and Technological Innovation in China
- II. Progress of China-ASEAN Science and Technology Partnership Program (STEP)
- III. Next step priorities of China-ASEAN STEP



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S&T Strategies of China

- ✓ "Marching forward to Science" in the 1950s
- ✓ "S&T as a Primary Productive Force" in the 1970s
- ✓ "Strategy of Revitalizing China through Science and Education" in the 1990s
- ✓ Innovation-driven Development Strategy



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President XI Jinping:

"The Innovation-driven Development Strategy is a forward-looking strategy for accelerating China's economic transformation, solving deep-rooted problems, and injecting vigor to growth."



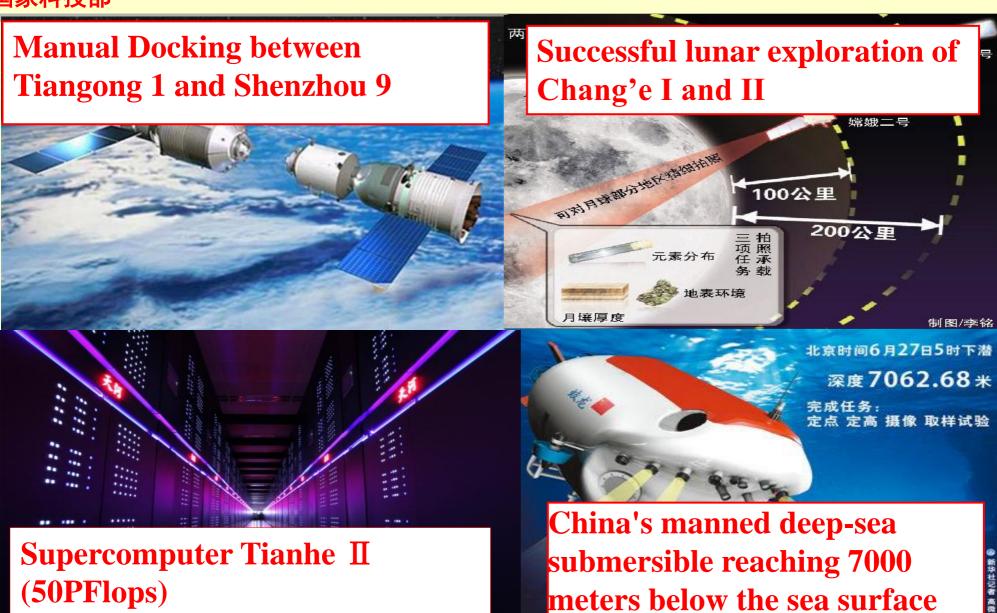
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China's S&T Development in 2013

- China's gross expenditure on R&D topped \$ 195 billion, accounting for 2.09% of its GDP. The business expenditure is 76% of the gross expenditure.
- China's full-time equivalent R&D personnel reached 3.6 million, ranking the 1st in the world.
- China published the second most scientific papers in international journals, with the citation rate rising to the 5th place.
- Technology Transaction Volume reached \$122.4 billion, a year-on-year increase of 16%.
- The prime operating revenue of high-tech industries grew by 10%, reaching \$1.8 trillion, ranking the 2nd in the world.



High-tech Achievements





Science and Technology Major Projects

The application of Beidou satellite has seen fruitful results











S&T Innovation Underpins National Major Projects

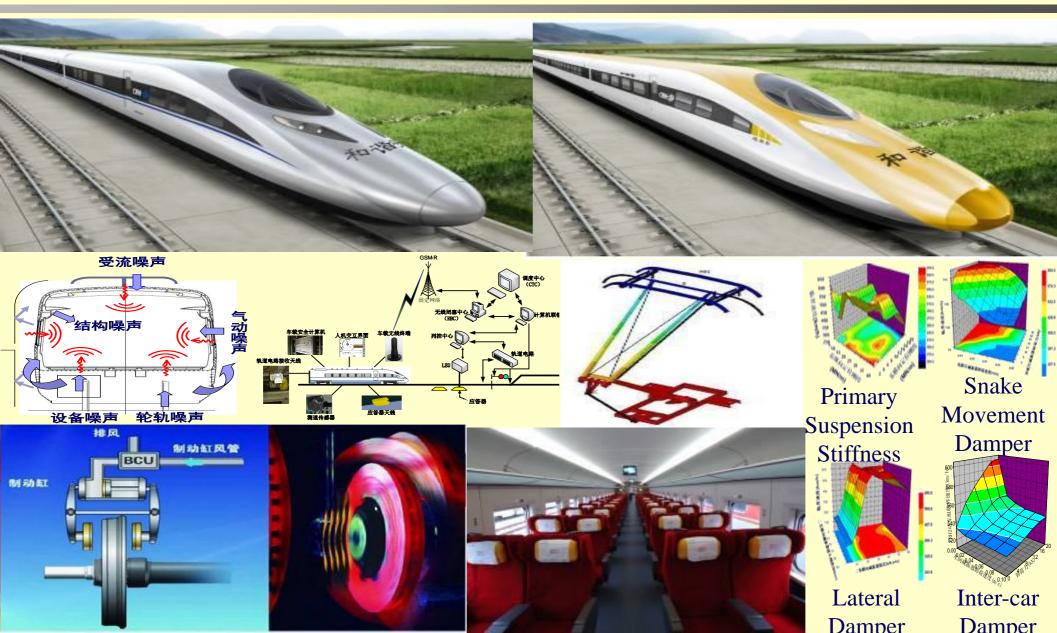
Chinese railways enter a high-speed era

High-speed railway, hydropower plant, UHV power transmission, hard-to-tap oil and gas fields, long distance transport of natural gas, large-diameter tunnel boring machine, new energy equipment and ocean engineering.



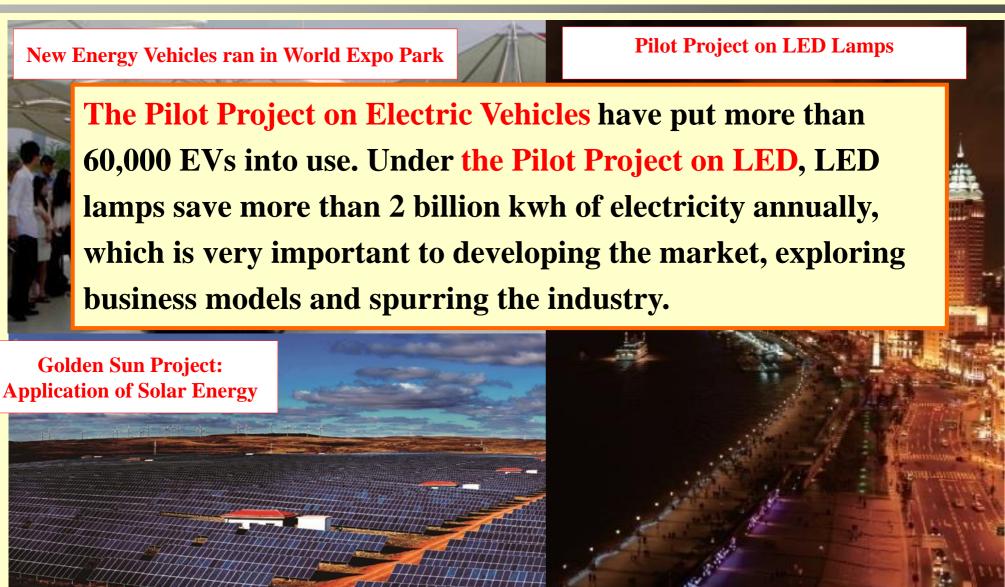


380km/h High-speed Train





Pilot Projects Boost Emerging Industries





Basic Research

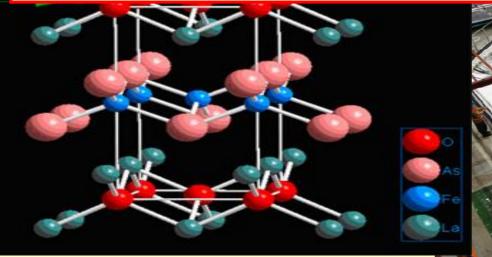


Chinese scientists cloned mice from IPS cells

The input on Basic Research reached 49.8 billion RMB in 2012, up 23% year on year, with a total of 168,000 sci-tech papers published internationally, ranking 2nd in the world.

Groundbreaking achievements: neutrino oscillation, quantum communication, ultra high-speed optical transmission, molecular design breeding in rice, IPS cells, magnetic confinement and fusion energy.





The neutrino detector of the nuclear reactor in Daya Bay



Innovation of Agricultural Technologies





National High-tech Parks

- 114 national-level high-tech parks contribute 14.5% of China's industrial added value.
- Granted patents of enterprises in the parks account for 50% of China's total.
- Energy intensity is ½ of the national average.
- Three national innovation pilot zones including ZGC Science Park, Wuhan East Lake High-tech Zone and Shanghai Zhangjiang Hi-tech Park were established to explore pro-innovation policies.





S&T Bring Benefits to the Public



The science program for social wellbeing encourages R&D investment of \$1 billion from the local government, business sector and social organizations. 470 such technologies have been disseminated, benefiting 51 million people. Around 100 thousand sets of new medical facilities and products made in China have been demonstrated.





International Cooperation

- The **innovation dialogue** has become an important mechanism for China to keep interaction with international partners.
- Science and technology partnership promotes collaboration with developing countries.
- International mega science projects and science programs.



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China-ASEAN Science and Technology Partnership Program



China-ASEAN STEP Program was launched at the 10+1 Science and Technology Ministerial Meeting September 22, 2012.



China-ASEAN Science and Technology Partnership Program

Principles: Equality and Mutual Reciprocity, Demand Orientation, Capacity Building, and Wide Participation

Major Projects (currently):

- > Joint laboratories
- ➤ China-ASEAN Technology Transfer Center (CATTC)
- ➤ Talented Young Scientist Visiting Program (TYSP)
- China-ASEAN Platform for Satellite Remote Sensing Data Sharing and Service



Agreement on Co-establishing Thailand-China Joint Research Center on High-speed Rail signed at the witness of Premier Li Keqiang and Prime Minister Shinawatra in October 2013



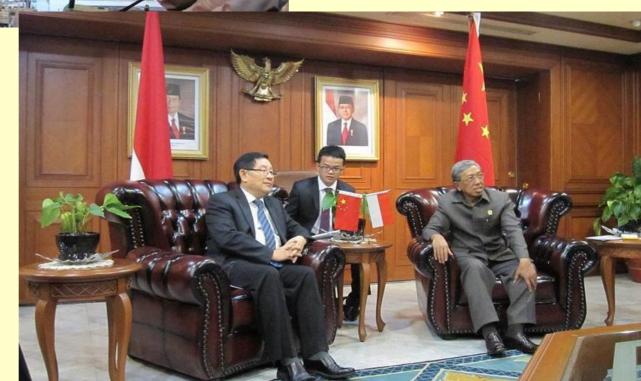


Cambodia-China Food Industry Joint
Laboratory will help improve the
food testing standards and capabilities
in Cambodia, as well promoting the
transfer of the applicable technology
from China to Cambodia.



Minister Dr. WAN Gang met with Indonesian Minister of Research and Technology Dr. Ir. Gusti Muhammad Hatta







MoU on Laos-China Renewable Energy Joint Laboratory signed in September, 2013

www.cattc.org.cn



Science and technology ministers unveiled CATTC at the opening ceremony of CAEXPO under the witness of Chinese and ASEAN leaders.

September 3, 2013



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1009 members have joined China-ASEAN Technology Transfer Network (CATTN) until now

ASEAN 354 in total

Member 26 technology transfer agencies

States

328 enterprises

655 in total

China

technology transfer agencies

602 enterprises,



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- Since its initiation, CATTC has arranged 18 technology matching events and 11 trainings.
- It has collected 1400 potential projects, with 900 from China and 500 from ASEAN states. 200 projects have been matched, with the contact value approaching \$ 40 million.





Co-Establishing Remote Sensing Satellite Data Sharing and Service Platform





Co-Establishing Remote Sensing Satellite Data Sharing and Service Platform







Talented Young Scientist Visiting Program (TYSP)

- > Further strengthening the exchange of science and technology personnel
- > Sponsors young scientists to work as visiting scholars in China

27 young scientists work at

Chinese Academy of Sciences
Chinese Academy of Agricultural Sciences
Chinese Academy of Tropical Agriculture,
Zhejiang University, Northwest University
Zhejiang Ocean University
Beijing Jiaotong University...



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CASTEP 青年科学家来华工作计划申报系统

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图 相关服务



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2011年11月19日,温家宝总理在第十四次中国-东盟领导人会议暨中国-东盟建立对话关系20周年纪念峰会上倡议设立"中国-东盟科技伙伴计划(以下简称"伙伴计划")",以加快深化中国东盟在科技和可持续发展领域的合作。2012年9月22日,中国和东盟十国科技部长在南宁正式启动"伙伴计划"...

动态新闻

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www.tysp.org.cn



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- At the ASEAN-China Summit held at Brunei Darussalam in year 2013, Chinese and ASEAN leaders issued the Joint Declaration on Commemoration of the 10th Anniversary of the ASEAN-China Strategic Partnership.
- "We shall jointly push forward China-ASEAN STEP, strengthen our collaboration in technology transfer, capacity building, and innovation, including the cooperation among SMEs. We will explore the possibility of launching China-ASEAN Innovation Center, STI Policy Study Center and the Action Plan on New and Renewable Energy."





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National Joint Laboratory and Joint Research Centers

Talented Young
Scientist Visiting
Program
(TYSP)

China-ASEAN STEP Program China-ASEAN
Technology
Transfer Center
(CATTC)

China-ASEAN
Remote Sensing Satellite Data
Sharing and Service Platform



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China-ASEAN Science Technology and Innovation Policy Research Center

1. National S&T Development Strategies

2. Management of science programs

3. Industrial technology roadmaps

4. Science parks and incubators

Priorities

5. SMEs innovation policies

6. Cross-boarder technology transfer and translation

7. Others (IP, R&D investment, tax incentives, financial support and government procurement policies)

China-ASEAN Agro-tech Collaboration Network

A platform will be established to promote exchanges and collaboration among agricultural research institutes, universities, enterprises and associations. Based on the needs of ASEAN states for agricultural technologies, we shall facilitate technology exchanges, joint research, training, technology matchmaking, etc.



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China-ASEAN Action Plan on New and Renewable Energy

- **✓ Solar thermal energy**
- **✓ Solar PV**
- **✓ Biogas**
- **√Small hydro**
- **✓ Clean stove**
 - >Joint research
 - >Technology and product demonstration
 - > Personnel training
 - > Business matchmaking
 - >Academic exchange activities

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On H.E.'s trip to Indonesia last year, President Xi Jinping proposed to join efforts with countries in the region to build a new "maritime silk road".



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Thank you!