

Partnership with Industry



In 2008, CAS further strengthened cooperation with other components of the national innovation system. Outstanding achievements have been made in the construction of new joint institutes and technology-transfer and commercialization centers, in the cultivation of S&T administrators and professionals, and in corporate socialization reform and development in accordance with requirements to “satisfy cooperative enterprises, local government and people”.



The CAS Pudong Science Park ground-breaking ceremony in Shanghai

There were 80 cooperation agreements newly signed or renewed by CAS and its affiliates with local governments in Shanghai, Hubei, Fujian, Shenzhen, Nanjing, Tangshan, the Ministry of Water Resources, the State Intellectual Property Office, China Petroleum & Chemical, China Yangtse River and Three Gorges Development Corporation and Shougang Group. The number of such agreements has so far amounted to 794.

Due to CAS technology transfer and commercialization, the revenue of the cooperative enterprises was raised in 2008 by RMB 96.4 billion yuan, an increase of 55% over the previous year, and realized profits and tax of about RMB 8 billion yuan. There were 2,336 registered CAS technical contracts with contractual turnover of RMB 1.67 billion yuan. An amount of about RMB 1.2 billion yuan was received from local governments and enterprises as expenditure for scientific activities.

CAS activities relevant to domestic cooperation were fully appreciated in the *Report on the Work of Government 2008* of four provinces such as Jiangsu, three municipalities such as Shanghai and 24 major cities such as Shenzhen, and the contents of cooperation with CAS were written into their important documents in 18 provinces and cities to show their desire to cooperate closely with CAS.

Preparation for Newly Built Institutes in Steady Progress

Nine newly built institutes (academies) such as the Shenzhen Institutes of Advanced Technology has recruited

1,472 persons and 861 postgraduates. There were 366 projects under consideration with contractual funding of RMB 300 million yuan, 75% of which were from outside sources, and there were 244 projects applied

for patents. The mid- and long-term science and technology development program of five newly built institutes such as the Suzhou Institute of Nanotechnology and Nano-bionics has been examined and approved by CAS. The campus construction of newly built institutes or academies has basically been completed and four institutes such as the Qingdao Institute of Biomass Energy and Bioprocess has moved into new addresses. The preparation of the Suzhou Institute of Bio-medical Engineering was going well and the preparation of the Shanghai Institutes of Advanced Technology was officially initiated.

Prominent Role of Technology Transfer and Transformation Platform

Up to 1,183 persons per year from CAS and enterprises were working in nine platform-type institutions of technology transfer and transformation such as the Jiaxing Applied Technology Research and Commercialization Center jointly built by CAS and local entities. Some 236 projects were transferred and transformed, due to transfer and transformation of scientific and technological achievements, thus the revenue of enterprises was raised by about RMB four billion yuan, realizing profits and tax of RMB 660 million yuan, and more than 1,540 person-times were trained for the society.

Eight technology transfer centers with intermediary features such as the CAS Beijing Technology Transfer Center had successfully promoted 129 projects that had realized revenue of about RMB 80 million yuan and increased the enterprise sales income by about RMB 1.3 billion yuan. There were about 1,182 persons from CAS and enterprises working

in eight technical innovation parks such as the Zhejiang Jinhua Science Park, RMB 70.97 million yuan and a revenue of enterprises of about RMB 6.6 billion yuan. CAS affiliates and local governments, enterprises and universities jointly set up more than 170 transfer and R&D organizations.

In 2008, the CAS Energy & Power Research Center jointly established by CAS with Jiangsu Province and its Lianyungang City was officially initiated and the documents relevant to the CAS Joint Research Center of Northern Japonica Rice Molecular Breeding set up by CAS and Heilongjiang Province were signed.

Nine entities such as the Jiaxing Applied Technology Research & Commercialization Center and the Changzhou Advanced Manufacturing Technology Development & Industrialization Center were accepted by the Ministry of Science and Technology as the first national technology transfer demonstration institutions, accounting for 11.8% of the total in China.

Effective Promotion and Application of Scientific Achievements

CAS sped up promotion of green agricultural products through active communication with the Ministry of Agriculture and relevant local competent authorities. More than 300 products derived from CAS agricultural projects were classified, compiled and issued. Symposiums on agricultural projects promotion were held in Harbin, Wuxi, Changzhou, Wuhan, Changsha and Yangling. Large-scale experiments were conducted on some of the projects in localities.



Representing CAS, Prof. SHI Erwei (central right), Vice President of CAS, signed a contract with China Petrochemical Corporation.

Conferences were actively organized to promote specialized products. For example, forums on coal chemical industry and titanium alloy were held in Northeast China, 21 institutes relevant to life science were organized to perform technical connection with biomedicine industry in Taizhou, more than 60 experts were organized to implement projects in Guizhou in support of the Program for Assisting Guizhou by Science and Technology, relevant institutes were organized to perform ceramic industry technology application in Jingdezhen, nearly 60 experts from 22 institutes were organized to conduct exchange with enterprises in Nanjing, and more than 30 experts were organized to perform topic connection in Chongqing in accordance with technical demands of advanced manufacture and material field.

CAS attended 77 fairs and business conferences of all kinds, with 1,025 exhibitors (times) and 14,000 projects (times), and won 108 prizes. Excellent social effects were achieved due to prominent exhibit theme and high technology contents.

Staged Progress in Special Projects

Ninety-nine projects of the S&T Action Program for Revitalization

of Northeast China and five special programs for Northwest China had been approved and registered, with an investment of RMB 81.75 million yuan from CAS and about 1.1 billion yuan from social sources, 46 projects have been completed and 39 projects accepted, through implementation of these projects, the revenue of the enterprise increased by more than RMB 5.3 billion yuan. The S&T Action Program for Revitalization of Northeast China has been successfully accepted and assessed. Part of projects specific to Northwest China, which was put into practice, such as the Program for Assisting Guizhou with Science and Technology, the Program for Assisting Tibet with Science and Technology and the Program for Assisting Qinghai with Science and Technology have passed inspection and assessment.

Team Construction of Domestic Cooperation Reinforced

A number of employment positions for domestic cooperation provided by CAS were dedicated to five categories of transfer and transformation organizations such as platform-type technology transfer and transformation center as well as technical deputy

The newly built Institute of Urban Environment in Xiamen, Fujian Province



leaders. The management measures and implementation plan for these positions were defined. The right of audit on use of these positions was given to CAS branches. In 2008, all positions for domestic cooperation have been distributed to 85 CAS affiliates and used in good condition. According to the requirement that prior support is given to fast developed branches and more support is given to well developed branches, dynamic adjustment was executed in each CAS branch. The allocation and adjustment plan for these positions in 2009 were formulated.

The assignment, appraisal, management and use of technical deputy leaders are combined closely with domestic cooperation and technology transfer and commercialization, the right of assignment and management was given to CAS branches and in-service management is strengthened, and cross-regional exchange and assignment of technical deputy leaders were carried out. By the end of 2008, CAS has all together 85 technical deputy leaders working in Jiangsu, Anhui, Jilin and Sichuan, Five people were selected to join Ph.D Service Mission of the Organization Department of Central Committee of the CPC, and 28 cadres were selected and assigned by local governments for a short-term service.

Perfection of Domestic Cooperation Mechanism

The Program for Organization and Implementation of Domestic

Cooperation and Technology Transfer and Commercialization during 2008 – 2010 was issued by CAS and an action plan to attain a goal of RMB 100 billion yuan social and economic benefits was worked out.

CAS made adjustments in methods for incentive management by adding prize review serials, referring to the amount of newly increased social economic benefits, the number of successful cases of transfer and transformation, and the number of enterprises incubated. At the same time, the Special Award for Regional Contributions of Domestic Cooperation was given.

Winners of domestic cooperation unit awards included 12 research institutes such as the Dalian Institute of Chemical Physics, four CAS affiliates such as the Shenyang Branch, the Jiaying Applied Technology Research and Commercialization Center, the Jinhua Science Park, the Chengdu Organic Chemistry Co. Ltd. and the Songyuan group, and 40 individuals advanced individual awards of domestic cooperation.



The newly built Yantai Institute of Coastal Zone Management for Sustainable Development

High-tech Industry



In 2008, all CAS invested enterprises experienced a downturn in their performance operations due to the earthquake in Wenchuan and the global financial crisis. The average revenue of 422 CAS funded enterprises reached RMB 171.573 billion. Their total profit amounted to RMB 4.103 billion, decreasing by 2.5% and 39.1% respectively over the same period of the previous year. The CAS state-owned operational assets equity was RMB 12.813 billion, increased by 2.2% over the same period of the previous year.

The total revenue of 31 shareholding enterprises of the Chinese Academy of Sciences Holdings Co., Ltd (CAS Holdings) amounted to RMB 121.229 billion with a net profit of RMB 440 million, decreasing by 25.5% and 83.5% respectively over 2007. Net assets were RMB 11.549 billion and the equity under CAS Holdings was RMB 7.346 billion, amounting to decreases of 0.1% and 9.9% respectively over the previous year.

In 2008, CAS holding enterprises applied for more than 150 national and local S&T projects, of which nearly 80 projects were approved with RMB 370 million of funding in place.

Market-oriented restructuring on stock shares of CAS-funded enterprises were initiated, and some of the state-owned shares in China Sciences Group, China Netcom,

CAS Sunyever and Dalian Purtec were transferred, and the liquidation of business assets of CAS-affiliated public institutions was completed. All remaining issues in relation to these research institutions were dealt with and proposals for maintaining the stability of these enterprises were approved. Seven share-holding enterprises were selected as pilot sites for dynamic supervision. The boards of directors of these pilot enterprises were encouraged and helped to establish institutional strategies, and systems for salaries and financial auditing. Mechanisms for corporate strategic management, and incentives and restraints were studied carefully. The establishment of a dynamic supervision approach was investigated, and intellectual property rights along with an intellectual property operating company were set up. The creation of an intellectual property operation network within

The Lenovo Institute for training CEO's opening ceremony



CAS and the establishment of a startup risk fund were studied and explored.

A CAS Lenovo Institute was founded to search for new models to integrate the four key aspects in streamlining the process of successful technology transfer, namely research breakthroughs, talented personnel, capital resources, and market strategies. After careful planning, CAS Holdings, Lenovo Holdings, the

Graduate University of the Chinese Academy of Sciences, the University of Science and Technology of China, the Bureau of Domestic Cooperation and the Bureau of Personnel and Education collaborated and started several training programs including the Lenovo Star – Special Training Seminar for Enterprising CEO's, and the Practical Training Course for Transfer and Commercialization of Technology Results. All training programs have been running smoothly.