



# CAS Launches Drastic Reform Initiative

By XIN Ling (Staff Reporter)

A massive overhaul is coming to the Chinese Academy of Sciences (CAS). To straighten its “fragmented, inefficient research”, the academy has decided to restructure its 104 institutes for better teamwork.

“The existing research regime has seriously undermined our ability to innovate”, remarked CAS President BAI Chunli at a press conference in Beijing on August 19, where he revealed the reform plan. “It’s time we broke institutional barriers, and to manage research activities in a more scientific way.”

According to the plan, institutes are to be sorted into four functional categories: innovation centers, centers of excellence, big-science research centers, and specialized research institutes.

Among them, innovation centers will focus on application oriented research to answer national strategic needs, in fields such as the development of small satellites, space science, marine information technology, and drug research. Centers of excellence aim at achieving academic excellence at the forefront of fundamental sciences, with five such centers already in operation since early this year. Big-science centers eye international collaboration and data sharing based on large scale research infrastructures. And the specialized institutes will be devoted to boost local development and sustainability.

Meanwhile, CAS also promised a more flexible and open personnel system to lure elite scientists, especially young and foreign ones. For instance, CAS aims to increase the proportion of its non-Chinese researchers from 1% to 3% by 2020.

The Shanghai Synchrotron Radiation Facility is one of the biggest research infrastructures in China.



Such a reform initiative followed an appeal by Chinese President XI Jinping, who visited the Institute of High Energy Physics last July and appealed for CAS to become a world leader in science.

As for the timetable of the reform, it is expected to be “generally accomplished by 2020” and “fully accomplished by 2030”, Bai said.

Although more details of the reform remain to be revealed, its significance has been widely interpreted by leading scientists in and outside the academy.

“CAS has experienced rapid development in recent years. However, a major problem that’s been haunting us is scattered, fragmented, repetitive research that lacks coordination and cooperation. The reform strives to consolidate research efforts and achieve ‘something big’,” commented WANG Yifang, director general of the Institute of High Energy Physics and head of the CAS Center of Excellence in Particle Physics.

Wang was echoed by POO Muming, director of the Institute of Neuroscience and of the CAS Center of Excellence in Brain Science.

“The success of the new system critically depends on effective team work,” Poo pointed out.

“There must be commensurate changes in the current practice in the evaluation of a scientist's accomplishment by our institutions and funding agencies – a scientist is often devalued when the published work results from collaboration,” he noted. “In some institutions, the contribution is even quantified based on the authorship order in the publications. This overemphasis on the independence of scientific work as a prime criterion for promotion, funding, and various honors and prizes has seriously eroded

the spirit of collaboration, and will continue to be the main stumbling block to team work.”

Many expressed confidence in the prospect of the reform.

“This is a top-down reform. Everyone can feel the determination. Besides, we can look to other countries for their experiences in such reorganization. So I’m quite optimistic about the outcome,” said WU Ji, director general of the National Space Science Center.

Denis Fred Simon, vice provost for China initiatives and strategy at Arizona State University, said he is “more and more confident” in the success of the reform, which will be “more far-reaching than ever”. In his eyes, “most people welcome the reform, because it gives them more individual incentives”.

Richard P. Suttmeier, Professor Emeritus of Political Science at the University of Oregon and an experienced China observer, warned of possible handicaps as the reform goes on. “First of all, budgets must be straightened out, as some institutes will have to face markets. Secondly, stability will be maintained to avoid too many disruptive effects stemmed from the changes,” he said.

When asked about the yardstick for the reform’s success, Wang replied that it may finally boil down to research achievements. “The reform has just started,” he was prudent. “If it is successful, it will definitely exert a positive and profound influence on the innovation system in China.”

“This is the most drastic structural reform of CAS in its 60-year history,” Poo asserted. He also believed that the successful implementation of the CAS reform will “greatly affect the reform in universities and other academic institutions”.