

Guidance by Ministry of Education and Ministry of Finance on the Implementation of Acceleration Plan for Enhancing Higher Institutions Innovation Capacity

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Provincial Education Departments, Provincial Finance Departments, universities:

In order to respond to President HU Jintao's remark on the 100th anniversary celebration of Tsinghua University, to actively promote collaborative innovation, to encourage integration of higher education with S&T, economy, culture, to accelerate the enhancement of higher institutions innovation capacity and to sustain the development of an innovative country that has ample human resources, the government has decided to implement the "Acceleration Plan for Enhancing Higher Institutions Innovation Capacity" (below as "2011 Plan"). Guidance on concrete implementation is provided as below:

1. Why has the 2011 Plan been launched?

- (1) "2011 Plan" is a strategic response to President HU Jintao's remark on the 100th anniversary celebration of Tsinghua University. President HU's remark demonstrates an urgent strategic need for full improvement of higher education quality, and enhancing innovation capacity is the core to meet the strategic need. The following tactics are therefore essential to ensure sustainable enhancement of innovation capacity in higher institutions:
 - to promote collaborative innovation;
 - to encourage in-depth collaboration between higher institutions and research institutes, industries;
 - to form strategic alliance for effective resources sharing.
- (2) "2011 Plan" is an important support to the development of an innovative country. In today's world, innovation has become a major drive to socio-economic development, and innovation capacity has then become the key component of a country's competitiveness. Science and technology have experienced rapid growth, it is pressing to change innovation concept and model, so as to speed up the integration and transformation of knowledge and technology based on cross-discipline collaboration. It is also pressing to speed up the re-organisation of innovation power and resources, promoting collaboration between government, industry, education and research, supporting the country's socio-economic transformation.
- (3) "2011 Plan" is a strategic initiative which facilitates the collaboration of education, technology, economy and culture. Since long before, China's innovation power has developed on an individual-basis with a wasteful duplication of innovation resources and low innovation efficiency. It is therefore pressing to break the barriers against innovation, promoting collaborative innovation, encouraging integration of education, technology, economy and culture, fully enhancing the country's overall innovative capacity and competitiveness.

2. Strategic guidance

In line with the requirement of “meeting country’s needs, achieving world’s first class”, focus shall be given to leading-edge disciplines that meet the country’s major needs. It is necessary to position key disciplines as the foundation, to position mechanism reform as the priority, and enhancement of innovation capacity as the breakthrough. S&T is the primary productivity, while HR is the primary resource. Higher education plays a critical role in integrating S&T and HR to support the country’s socio-economic development.

3. Key principles

- **Needs-oriented**

It is crucial to respond to the major needs of technological, economic and social development. It is pressing to resolve the country’s pressing strategic issues, leading-edge S&T challenges through collaborative innovation.

- **Full openness**

The Plan encourages openness to all higher institutions without limits of range or organisation nature, widely attracting research institutes, industries, local government authorities and international innovative powers to form a diverse, open and smart organisation model and operation model.

- **In-depth integration**

The Plan encourages in-depth collaborations between higher institutions and various innovative powers to explore a new mechanism integrating innovative components. It promotes full sharing of high quality resources, accelerates cross-disciplinary integration, supports interactions among education, S&T, economy and culture, achieving the enhancement of quality training of talents and S&T research capacity.

- **Led by innovation**

The enhancement of higher institutions innovation capacity relies on collaborative innovation and its mechanism reform. Vice versa the success of S&T innovation and advancement relies on the sustainable development of higher education and the establishment of world-class universities.

4. Overall goals

- to give full play of higher institutions’ multi-disciplinary and multi-functional advantages to ally domestic and overseas innovation powers;
- to effectively integrate innovation resources to establish new models and mechanism for collaborative innovation, which benefit the nurturing of innovative cultural environment;
- to establish a number of “2011 Collaborative Innovation Centre” which attracts and trains leading innovation talents to achieve remarkable results, making such centres the academic base of major international influence, research base for industrial technology innovation and an engine for regional innovation and cultural innovation;
- to promote the integration of knowledge innovation, technology innovation, regional innovation.

5. Key tasks

(1) to establish collaborative innovation platform and model

It is important to position the enhancement of innovation capacity, which is based on talents, disciplines and research, as the core element. It is also important to make full use of higher institutions' existing foundation, leveraging diverse resources to promote in-depth collaborations among higher institutions, research institutes, industries, local authorities and the international society, to explore collaborative innovation that meets various needs. Specifications are as below:

- Higher institutions should take the advantage of its strong disciplines to work with high quality domestic and international institutions for resolving major issues related to social and S & T development. They should attract outstanding innovation teams and resources to establish knowledge innovation models that are in line with international standards. Higher institutions should work to nurture fine academic environment and to train world-class talents, gradually becoming the academic centre that leads international S&T collaborations.
- Higher institutions should take advantages of their strong disciplines to collaborate with industries and research institutes to tackle key common challenges in industrial development. They should aim at forming research and application platform that is multi-disciplinary, multi-teams, establishing a technological transfer model based on the collaborations of governments, industries, education and research. Higher institutions will then become the national technology innovation hub through providing support to industrial restructuring and industrial technology advancement.
- Higher institutions should serve regional socio-economic development and meet regional development needs. They should support local governments to draw up regional economic development plan. Higher institutions should establish a diverse and radiation model for transferring innovation results through working closely with industries and other research institutes. They should drive regional industrial restructuring and emerging industries development through providing strategic consultancy service for local governments.
- Higher institutions should take the advantage of their strength in humanitarian disciplines and HR to meet the social cultural development needs. They should work with both domestic and overseas research institutes, industries to form cross-disciplinary research platform, exploring new model for cultural heritage. Higher institutions play a think-tank role in cultural exchange and communication, enhancing the country's soft power and Chinese cultural influence in the world.

(2) to establish collaborative innovation mechanism

2011 Plan will break the internal barriers that constrain the enhancement of higher institutions innovation capacity through government leadership and market motivation. It will break the systematic barriers between higher institutions and other innovation organisations, positioning HR as the core element of collaborative innovation. It aims at releasing people's potential, making full use of capital, information and technology, so as to nurture an environment that benefits collaborative innovation.

- To establish effective organisational management system. A management body, attended by relevant parties, will be set up to be responsible for co-ordination and decision-making.

Such a body will map out the overall strategy for science and technology, clarifying roles and responsibilities, staffing, ownership of resources, achievements and IPR, so as to achieve resources sharing and sustainable development.

- To explore HR management system for promoting collaborative innovation. Such system will endorse task-based employment, forming collaborative innovation teams led by talents. It will also encourage staff transfer across higher institutions, research institutes and industries.
- To establish a training model of top innovation talents. Such model is based on S&T research and practice innovation, promoting cross-disciplinary integration and collaboration between industry, education and research.
- To establish assessment mechanism based on innovation quality and contribution. The old assessment mechanism relying on research papers and awards will be replaced with one that encourages exit strategy, competition and meets the country's major development needs.
- To establish an organisation format for sustainable innovation. Such format will take full advantages of collaborative innovation talents, disciplines and resources, identifying and tackling major issues.
- To establish a resources allocation model based on cross-disciplinary integration. Such model will make full use of existing resources to support key disciplines, laying solid basis for collaborative innovation.
- To establish innovative international exchange and collaboration model. Such model will attract international innovation powers and resources, supporting world-class experts to take part in collaborative innovation and to jointly train talents. It will accelerate the globalised development of our higher institutions through encouraging collaboration with top overseas universities and research institutes.
- To nurture a culture environment that is good for collaborative innovation. Such environment will encourage freedom, openness, innovation and welcome failure. It promotes team spirit, professionalism and integrity.

6. Management

(1) Organisation management

Ministry of Education and Ministry of Finance will form a joint Leadership Office, responsible for decision-making related to top-level design, macro layout and co-ordination. The Leadership Office will manage branch offices respectively responsible for planning & design, implementation, monitoring. These offices will be based in the Education Ministry.

An expert committee will also be set up to provide consultancy on key decision-making issues, overall design, shortlisting centres, management. Experts will be invited from relevant authorities, higher institutions, research institutes, industries and social groups.

It is necessary to set up a third-party accreditation mechanism that demonstrates openness, fairness and impartiality. A third-party organisation is responsible for short listing experts, organising accreditation process, carrying out periodic assessment.

(2) Implementation

“2011 Plan” will assume a four-year cycle, starting its implementation in 2012. The implementation consists of three stages including set-up, accreditation and evaluation. Once meeting set requirements, an application of setting up a “2011 Collaborative Innovation Centre” can be submitted for accreditation. Such accreditation will be organised on an annual basis at national level. Different types of collaborative innovation centre will be accredited in line with set quantity and scale.

Preparation and set-up

Higher institutions shall strengthen leadership and top-level design in line with the “2011 Plan” principles and requirements to facilitate systematic reform, to gather existing resources, to ally research institutes, industries, local governments and international innovation powers, and to promote collaborative innovation. Institutions shall identify its collaborative innovation direction, models, set up its collaborative innovation body and nurture collaborative innovation environment. They should create new mechanism for collaborative innovation, laying a solid foundation for engaging into the “2011 Plan”.

Accreditation

A collaborative innovation body can submit applications of setting up collaborative innovation centre for accreditation. The body shall meet the following requirements:

- demonstrating scientific advancement
- fitting into the country’s strategic needs
- having the ability to take forward systematic reform
- having the capacity to resolve major issues
- having strong disciplines

The Leadership Office will carry out initial assessment, and then delegate the third-party to complete accreditation process. The Leadership Office will then approve the set-up of a “2011 Collaborative Innovation Centre” according to the third-party accreditation result.

Evaluation

The approved “2011 Collaborative Innovation Centre” shall form and gradually improve its management system, integrate various resources, set out clear operation regulations to strengthen management process. Ministry of Education and Ministry of Finance will jointly set up an evaluation mechanism according to set plan and tasks of the collaborative innovation centre, ensuring effective target management and periodic assessment. Those “2011 Collaborative Innovation Centres” which do not meet set targets will be asked for changes or even replaced.

(3) Support mechanism

The support mechanism will add value to promoting collaborative innovation, making full use of existing resources and attracting diverse input. A collaborative innovation centre will serve industrial development and regional development. Local government authorities will play a critical role in terms of supporting the set-up of a long-term mechanism that help to attract local support and investment.

Central finance has set up ring-fenced funding to accredited “2011 Collaborative Innovation Centre”.

Relevant authorities, higher institutions should prioritise its resources in terms of HR management, talent plan, recruitment targets, research projects to ensure smooth implementation of “2011 Plan”, supporting system reform for the set-up of “2011 Collaborative Innovation Centre”.

China Ministry of Education China Ministry of Finance
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