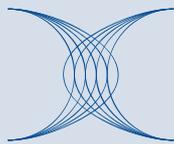


Session 1: Engaging China - Opportunities and Challenges for Universities

- China's and Beida's motivations for partnerships with international higher education institutions
- IARU Partners' Case Studies – from ETH Zurich, Oxford, Copenhagen, Yale and Cambridge. More case studies will be presented at the meeting
- Annex: Background paper on China's higher education landscape and some examples of university engagements with Chinese universities
- An IARU Center in Peking University (exploratory)



1.0 Engaging China - Opportunities and Challenges for Universities

Background Paper for Engaging China - IARU Internationalization Strategy By Peking University

The 20th century was a historic period when higher education developed rapidly throughout the world. Numerous countries carried out significant reform of higher education to take advantage of the opportunities and to cope with the challenges brought by economic globalization. In this context, the Chinese government launched the strategy of rejuvenating the nation relying on the progress of science and education, as well as the strategy of invigorating the nation through human resource development. Emphasizing both foundational education and professional education, the government has accelerated the steps of higher education reform and vigorously developed the higher education system.

According to the educational rejuvenation project approved by the Central People's Government, the Chinese Ministry of Education regards as working emphases the facilitation of construction of high-level universities and key disciplines. With the implementation of Project 985 and Project 211, great efforts have been made to construct world-class universities as well as a group of world famous high-level research universities.

Project 211 was launched in the year 1995 by the Chinese central government to finance roughly 100 higher education institutions and a set of key disciplines at the turn of 21st century. The main goals are to enhance the educational quality, scientific research, administrative level and running profit of those universities and disciplines as well as to facilitate them to achieve notable progress in higher educational reform, especially in administrative professionalism and expertise, so as to develop them as bases for cultivating high-level talents and solving vital problems of national or regional economic construction and social development. Thus a more solid foundation for building a set of world-class universities would be laid. The construction content of Project 211 consists of key disciplines, public service and the overall construction of universities, with key disciplines construction as the core. Since its launch in 1995, Project 211 has been based on serving and promoting national economic construction, scientific research innovation and social progress. With the strategies of concentrating strength, selective breakthrough and driving overall development, the Project focuses on the construction of a group of higher educational institutions and key disciplines, and has already improved their conditions for teaching and scientific research remarkably, as well as elevated their overall administrative strength and capacity of cultivating high-level innovation talents. It has become the fundamental project to implement the strategy of rejuvenating the nation through science and education development, as well as the initial project in the construction of world-class universities. The Project has created a solid foundation for the establishment of China's research universities.

Project 985 was launched by the Chinese central government for constructing world-class universities and a group of world famous high-level research universities. In May 1998, Project 985, with the goal to build world-class universities in China, was unveiled at Beida. The 985 Disciplinary Innovation Platform was founded to address key challenges confronting China's economy and society. It centers upon the national strategy of scientific and technological development, promoting

institutional restructuring and innovative capacities of individual universities and the whole sector. With the above target, the Project intends to establish new experimental administrative and operating systems of higher education institutions. Taking opportunities, concentrating resources, highlighting pivots, exhibiting characteristics and exerting advantages, the Project emphasizes the improvement of scientific innovation capacity and international competitiveness of higher educational institutions so as to construct world-class universities with Chinese characteristics. The construction task contains five aspects, including mechanism innovation, team building, platform and base construction, facilities support and international exchange and cooperation.

In 2010, the central government issued the **Outline of China's National Plan for Medium and Long-term Education Reform and Development**. In accordance with the state strategic arrangement to "give priority to education and turn China into a country rich in human resources", this Plan was formulated to enhance citizens' overall quality, boost educational development in a scientific way. In the plan, Chapter 7 focuses on Higher Education in the following five aspects: Raising higher education quality in an all-round way; Bettering cultivation of talent and professionals; Elevating research levels; Buttressing social service capacities; Optimizing a distinctive higher education structure. The plan also emphasized that the building of first-class universities and faculties shall be accelerated. "Project 985 shall be carried out in innovative ways on the basis of establishing crucial disciplines and faculties and a platform for innovation in advantageous disciplines. Project 211 shall move on, and projects devoted to distinguished and advantageous disciplines shall be initiated." "Higher educational institutions shall be urged to open their best faculties to the world, and to participate in or set up collaborative international academic organizations or global science plans; they shall also be encouraged to join top-notch education and research institutes abroad in establishing united research and development centers."

In Chapter 16 of the Plan, it is also encouraged to Further Opening China's Education including: Promoting international exchanges and cooperation; Introducing quality education resources abroad; Upgrading exchanges and cooperation. The Plan also mentions that "Platforms shall be established for high-level international exchanges, cooperation, and policy dialogs on education; and global exchanges and cooperation shall be stepped up in education research and innovation."

After years of development, China's higher education has stepped into a period of popularization, cultivating numerous people of talent and insight for economic development and social progress. As higher education rapidly advances, the Chinese government and universities have made every effort to balance the relationship of higher education quality with its scale, constitution, and profit as well.

Peking University's Motivations

As one of the leading universities in China, Beida's long-term development goal is to become a world-class university. With the support of Chinese government, through the construction process of recent years, great achievements have been made in team building, improving teaching and research conditions, as well as in enhancing administrative and operating systems. In the years to come, Peking University will continuously exert its traditional advantages, strengthening basic scientific research, promoting interdisciplinary research, and nourishing new projects across disciplines. On the other hand, Peking University will pay much attention to the development of hi-tech research and encourage the combination of research and enterprise. Meanwhile, to make full use of the abundance of partnership resources, Peking University will put more stress on scientific cooperation with overseas universities, research institutes and hi-tech groups.

The following programs are of top priority

1. Western Classical Studies:

Classical Studies is one of the fundamental subjects in the system of western humanities and social sciences which requires interdisciplinary education and research. Beida newly established the Center for Western Classical Studies. It will integrate the human resources and research force from Beida's faculty of history, philosophy, law, politics, foreign languages and so on. Other than current faculty members from the above-mentioned disciplines, the center will also recruit specialized talents from abroad to enhance team building. The center proposed to open the following courses gradually: Ancient Greek, Latin, History of Ancient Greece and Rome, Ancient Greek Philosophy, History of Greece, History of Rome, Guide to the Medieval

Philosophy, History of Greek and Roman Politics Thought, Laws of Rome, History of Christian Civilization and so on.

The research focuses on: Athenian democracy and ancient Greek and Roman political thought; The philosophy of Plato and Aristotle; Early Christian literature and philosophy; Comparative studies of ancient Greece, Rome and China.

The center will be actively engaged in international exchange and plans to establish academic links with renowned universities as well as organize international conferences on western classical studies. Foreign scholars will be invited to teach and deliver lectures at the center for both long and short term. The center also plans to recruit graduate students for Master's degree and Ph.D. studies among which the outstanding students will be encouraged to gain overseas experience.

2. Regional Studies:

African and Latin American countries are playing an important role in global economics and politics. Their cultures occupy unique places in the world and have a profound influence. Enhancing the region studies is a substantial approach for Beida to promote the overall disciplinary construction, further perfect disciplinary layout.

In 2003, the Institute for Latin American Studies was established to coordinate teaching and research relevant with Latin American Studies at Beida. In 2010 the Center for Middle East Studies was established.

To enhance the regional studies, Beida intends to carry out the following initiatives: To increase exchange at university level, and set up framework to facilitate the academic cooperation and student exchange with those regions; To improve faculty building and increase input for regional studies and support more young talented scholars and diverse research interests to complement current research; Encourage scholars from different departments to cooperate with their counterparts, integrate academic strength through the implementation of several extensive programs; As a means to eliminate the exchange barriers and encourage the enthusiasm of young students to study the cultures of each other, design elective courses of Spanish and other respective language courses which are open to all students; Encourage student exchange by all means, including long term exchange program as well as short term study tours.

3. Scientific Research:

In line with national objectives and market demands, a number of cutting-edge high-tech issues of strategic importance and foresight are highly recognized and supported. The key areas include:

a) Brain and Cognitive Science

Brain and Cognitive Science is not only the frontier of the discipline development, but also interdisciplinary field, which involves neuroscience, psychology, information science, system science and behavioral science. Peking University will focus on building the brain and cognitive science, and at the same time promoting the integration of the life science, neuroscience, computer science, sociology, economics and medical science, in pursuit of the breakthrough in the emerging fields such as social cognitive neuroscience and neuroeconomics.

b) Information Science

Focus on creating a certain number of platforms such as micro-nano electronics and photonics, green computing and green communications, digital media and cultural creativity. Providing the internal and external support to the crossing of the disciplines, resource sharing and the integration of scientific research;

c) Life Science

Life Science is one of the most comprehensive areas in Peking University, which involves lots of departments and several fields. Peking University will continue to strengthen the building of the life science, basic medicine, clinical medicine and other areas, and promote the cooperation among molecular medicine, clinical research, system biology, dynamic imaging, functional imaging, biomedical engineering, and chemical genomics.

d) Clinical Medicine

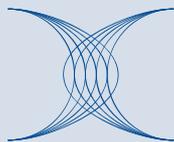
Peking University has a strong system comprised of the clinical hospitals and abundant clinical resources. In the next few years, Peking University will further strengthen the interdisciplinary research between the basic sciences and clinical disciplines, focus on the study of human health and diseases related to known and unknown genes, clarify its physiological and pathological mechanisms, and transfer the related knowledge into clinical prediction, diagnosis, prevention and effective treatment.

e) New Function Material

Peking University will focus on the following areas: biological materials, renewable energy materials, microelectronics and optics (communication) materials, and environmental and construction materials. For example, strengthen the fabrication and characterization of the material and device; pay attention to new energy, biomedical, environmental, information and other application areas, especially medicine and information related fields; carry out the study of medical materials and equipment, oral medical materials and equipment, and metal biological materials.

f) Energy, Resource and Environment

Peking University will focus on building a technological innovation platform of clean energy, and combining the resource - energy - environment to form a whole system of clean energy and clean use of energy. Also PKU will develop new energy related theory and technology, and systematically study how to use biomass, solar, wind, geothermal energy-related theories and key technologies.



IARU Partners' Case Study

Case Study: a Success Story from ETH Zurich

Sino Swiss Science and Technology Cooperation (SSSTC)

ETH has a long standing and intense collaboration with China.

A few numbers from 2010:

- 66 individual research contacts
- Faculty & Staff
 - Professors 2
 - Scientific Staff 46
- Students
 - Bachelor 27
 - Master 95
 - MAS/MBA 8
 - Doctorate 8
 - Exchange Students 14

ETH Zurich has concluded bilateral agreements on collaboration and exchange with the following Chinese institutions:

- Chinese Academy of Sciences
- Southeast University Nanjing (university-wide + School of Architecture)
- Tongji University, School of Economics and Management
- Tsinghua University
- Wuhan University
- Chinese University of Hong Kong
- Hong Kong University of Science and Technology, Schools of Engineering & Science

Since 2008, it is the Leading House for all Swiss universities with China in the Sino- Swiss Science and Technology Cooperation (SSSTC), initiated by the State Secretariat for Science and Technology (SER)

Budget:

- 1st phase: 2008 – 2011: ca. 11 Mil. CHF; matching funds on Chinese side (only partly earmarked)
- Number of funded projects so far 128, whereas 33 from ETH Zurich
- Instruments: Joint research projects; exchange grants; grants for institutional partnerships

Side programs:

- Internship positions in companies in China: project started in autumn 2010, > 40 open positions generated so far
- Additional research programs to expand / ask for affiliation in China

Success factors for SSSTC:

- Friendly and longstanding relationship between China and Switzerland in general
- Strong ties on federal level with most powerful S&T partners in China: MOST, MoE, CAS
- Program under the auspices of the Swiss Federal Government /State Secretariat for Education and Research SER)
- Professional project management with management support in China
- Swiss hubs for Science and Technology in China:
‘Swissnex China’ in Shanghai, Swiss embassy in Beijing
- Strong interpersonal relations with individuals (e.g. ETH Alumni):
 - Li Jinghai, Vice-President CAS
 - Wu Quidi, Former Vice- Minister of MoE
- Strong network with other Swiss organisations oriented to China: e.g. Chinese Embassy, Chinese – Swiss Chamber of Commerce, Chinese students organisations in Switzerland

Success factors for ETH:

- Leading House role gives strong bandwaggon effect
- Full support from ETH top management
- Committed faculty

Oxford links with Chinese institutions

Input to IARU paper on China's higher education landscape and examples of university engagements with Chinese Universities (March 2011)

1. Context

Oxford has had a major focus on the study of China for centuries and, in recent years, on collaborating with Chinese institutions across a range of disciplines. Initiatives in the Humanities and Social Sciences are coordinated through our China Centre, an umbrella group that creates a research and teaching community for our more than 40 China-focused faculty members. Oxford also has a China office in Hong Kong, which organizes academic lectures, cultivates relationships with potential benefactors, and looks after our alumni in China.

Our partners in our two largest collaborative research projects in China are not, in fact, universities. One is the China Oxford Centre for International Health Research, a collaboration with Fuwai Hospital in Beijing, the Chinese Academy of Medical Sciences' leading heart centre. A group of more than 30 full-time staff work on a number of randomized trials in the cardiovascular area and staff a training program for Chinese researchers to support large-scale collaborative research. The second project is the Kadoorie Study of Chronic Disease, one of the world's largest studies of public health. Working with the Chinese National Centre for Disease Control, 160 employees of Oxford's Clinical Trial Services Unit conduct research into the health of 500,000 Chinese in 10 locations.

2. Case study: water engineering research in collaboration with Peking University

This project typifies the kind of bottom-up collaboration that Oxford pursues most often. Oxford Professor of Engineering Science Alistair Borthwick works with Peking Professor Ni Jinren and his team in the Institute of Environmental Engineering, for instance on studying issues of sustainability of the Lower Yellow River. The collaboration has produced more than 10 exchange visits, many co-authored publications, and a visit to Prof Ni's laboratory by Oxford's former Vice Chancellor Dr John Hood. This collaboration is not large, but it is enduring and rooted in shared research interest and benefits from close working relationships.

Oxford and Peking have recently extended their collaboration on water engineering issues by creating a new partnership with NUS, called the Singapore-Peking-Oxford Research Enterprise (SPORE) for Water Eco-Efficiency. Hosted at NUS, the partnership will engage in joint research projects and jointly supervise ten postgraduate students studying for an Oxford doctorate. The collaboration will help to develop new ways to conserve and protect water resources. Strong relationships between individual faculty members enable this expansion into joint educational provision.

3. Issues

Visas for Chinese students to come to the UK. The increasingly restrictive UK government stances toward granting visas to foreign students has made it more difficult for Oxford to attract top Chinese full-time and visiting students. This is exacerbated by an Oxford policy requiring visiting students to pay £6000 fees—a policy with sensible justifications but which limits our ability to bring in visiting students, particularly from less affluent backgrounds. (We aim to waive this fee for reciprocal exchange agreements, it should be noted.)

Case studies from University of Copenhagen

I: Danish-Chinese Center for Molecular Nano-Electronics



Danish leader:
Professor Thomas Bjørnholm
Danish institution:
University of Copenhagen



Chinese leader:
Professor Yungi Liu
Chinese institution:
Institute of Chemistry,
Chinese Academy of Sciences

Funding period : 2009 - 2012

Funding in total : DKK14.5 million

Website : <http://nano.ku.dk/english/research/dkncenter/content/>

Danish-Chinese Center for Molecular Nano-Electronics was inaugurated on 7 September 2009 at Nano-Science Center, University of Copenhagen by the Minister of Science, Technology and Development, Helge Sander.

Danish-Chinese Center for Molecular Nano-Electronics is a Center of Excellence established by the means of a DKK 15 million grant from the Danish National Research Foundation. The Center is founded in cooperation with the National Natural Science Foundation of China (NSFC) with the goal of stimulating and furtherance the Danish Chinese research collaboration.

The common scientific goal of the work in the new center is to design and synthesize organic molecules that are programmed to self-assemble in predetermined structures with a desired electronic function. The function itself is not carried alone within the single molecules but is created when they assemble in the right order. Thermoelectric, electric, and optical properties are the focus and the academic root lies within the supramolecular and material scientific part of nanotechnology.

II. Major grant to support development of cancer vaccine and genome mapping

The University of Copenhagen, the Technical University of Denmark, Aarhus University and Aalborg University have, together with three companies, received the largest grant ever awarded by the Danish National Advanced Technology Foundation. The funds will be used to establish a national technology platform that will facilitate the mapping of the Danish genome. The first goal of the newly established centre will be to develop vaccines against cancer.

The four universities, together with Bavarian Nordic A/S, Beijing Genomics Institute Europe A/S and Genomic Expression ApS, will use the five-year DKK 86 million grant from the Danish National Advanced Technology Foundation (<http://hoejteknologifonden.dk/en/>) to open and operate the new research centre called the Danish Platform for Large-scale Sequencing and Bioinformatics. The universities and collaborating organizations will contribute DKK 84 million, bringing the Centre's total budget to DKK 170 million.

The Centre's broad international perspectives have the potential to establish Denmark as a leader in genome research.

“We want to gather the best bioinformatics and genome researchers in one place in order to create a genome sequencing centre of the highest international standard,” says University of Copenhagen Prorector Thomas Bjørnholm, who led efforts to secure the funding.

“Our vision is to create a Danish gene sequencing and bioinformatics facility that will allow us to map Danes’ genes. We hope that it will be possible to identify who is at risk of developing diseases like cancer. One of the goals is to create a vaccine against cancer.”

Beijing Genomics Institute Europe A/S will be situated at COBIS (Copenhagen Bio Science Park).

Chinese investments in Denmark

The new centre has enormous commercial potential. The universities expect to be able to establish partnerships with biotech and medicinal firms. BGI’s European subsidiary, Beijing Genomics Institute, the world’s largest gene sequencing centre, will contribute DKK 60 million to help establish the Copenhagen facility.

“The grant from the Danish National Advanced Technology Foundation makes it possible for BGI Europe to be established in Denmark. This has an enormous impact on disease prevention research and the University’s collaboration with the drug and food industries,” Bjørnholm says.

Two projects in one platform

Linking the Danish population study and the genome project gives a unique platform for researching the impact of hereditary factors on illnesses. The research will also aid in the development of individual dietary and medicinal recommendations.

The centre will carry out two integrated projects:

- A project to identify previously unknown pathogens that will lead to the development and patenting of commercial vaccines. The project will be headed by Professor Eske Willerslev, University of Copenhagen.

“The pathogen project is a unique and exciting opportunity to break ground in cancer research by using the basic research that my team has done,” Professor Willerslev says.

In addition to being the first to map the genome of a pre-historic human, Willerslev’s team recreated a prehistoric ecosystem in a spoonful of earth and discovered the world’s oldest life form, a 500,000 year-old bacteria that lived in Siberian permafrost. Willerslev received the Danish Ministry of Science, Technology and Innovation’s Elite Researcher award earlier this year.

- The second project will establish a unique catalogue of the millions of variations in Danes’ DNA. The genome atlas will serve as the foundation for new studies that will cast light on the hereditary causes for a number of common illnesses, as well as how they can be prevented. Known as a pan-genome, the project will be led by Professor Karsten Kristensen, University of Copenhagen.

“Establishing the national sequencing platform gives Denmark the chance to make a name for itself when it comes to genome research, and the close collaboration with BGI will be invaluable in this work,” says Professor Kristensen, who has worked with BGI for a number of years.

“The information yielded by the pan-genome will open the door to more ambitious projects that can use the one-of-a-kind database and blood bank to gain valuable insight into Danish DNA and prepare the ground for development of individual treatments and prevention strategies.”

The Danish National Advanced Technology Foundation awarded the grant based on an application submitted by Prorector Bjørnholm together with Prorector Søren E. Frandsen, Aarhus University, and Prorector Anders Bjarklev, Technical University of Denmark.

University of Cambridge Case Study

Low Carbon Energy University Alliance with MIT and Tsinghua University

Low carbon energy, has become a research priority for the Chinese Government. As recently as March 2011 in a report to the National People's Congress, Premier Wen Jiabao has called for dramatic development of low carbon technologies, increased energy efficiency and the promotion of new and sustainable energy to cope with climate change. The reduction of energy intensity was a also theme that China's Ambassador to the UK Liu Xiaoming touched upon in a February 2011 address in Cambridge.

The Low Carbon Energy University Alliance (LCEUA) is a tripartite collaboration between Cambridge, MIT and Tsinghua University. LCEUA was formed in November 2009 with the purpose of conducting collaborative scientific research on low carbon energies, conducting policy research and analysis on low carbon energy solutions, and bring the Alliance's work to bear on global energy issues.

The Alliance was initiated with an investment of about US\$10m from the Chinese Government to fund core operations including collaborative see projects. The aim is to build on the investment through an active fundraising role.

LCEUA's governance consists of a steering committee comprising two members from each university.

Six areas were prioritised for seed project funding:

- Economic and policy modelling for a low carbon future
- Combustion and carbon capture
- Low carbon cities and efficient industry
- Bio-fuels
- Thermal energy conversion
- Nuclear power

The initial call for 2010 seed projects led to the award on a competitive basis of the following projects for Cambridge investigators – total value US\$600K, each US\$200K:

- Geo-energy Systems Simulator from Building Scale to City Scale for Professor Kenichi Soga and other members of the Cambridge department of Engineering in collaboration with Tsinghua and MIT.
- Technology Development for Total Conversion of Sweet Sorghum Feedstock to Ethanol - Dr Paul Dupree (Department of Biochemistry).
- Innovative Power Generation Technologies for Low-Grade Energy Sources - Dr Liping Zu (Whittle Laboratory, Department of Engineering).

The 2011 round of seed projects led to the award of a further four projects funded in Cambridge, each worth \$200K.

- Low Carbon Urban Design: From Options Assessment to Policy Implementation
- Superconducting DC Power Distribution for Datacenters and Microgrids.
- Flexible Power for Clean Fuels and Peak Electricity production by Co-Electrolysis of CO₂ and H₂O.
- Solid Oxide Direct Carbon Fuel Cells

There are a number of significant features which together set LCEUA apart from the majority of Cambridge-China collaborations:

- The basis of the collaboration is a tripartite global research alliance among leading institutions in the West and China
- A multidisciplinary initiative within Cambridge matched to a leading-edge interdisciplinary Chinese research institution within Tsinghua.
- Addresses the key theme of energy in the University's overall research strategy and a set of paramount global issues and challenges in the energy field
- Enjoys a well-defined governance structure
- Draws on external funding from the Chinese government and envisages scalability through other external funding sources

Case study from Yale University

Yale University Press and China International Publishing Group Series, "The Culture and Civilization of China"

The "Culture and Civilization of China" (CCC) project was initiated in 1990 to bring together Chinese and U.S. scholars, editors, publishers, and translators in an in-depth collaborative process to publish a series of beautifully produced books that make the cultural riches of China available to general readers as well as scholars. These volumes are published both in English by Yale University Press and Chinese by the China International Publishing Group.

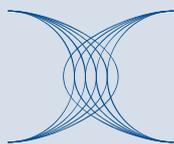
President Jiang Zemin presented the inaugural volume, *Three Thousand Years of Chinese Painting*, published in 1997, to President Bill Clinton as the State Gift.

To date, seven additional volumes have been published: *Chinese Architecture* (2002), *Key Concepts in Chinese Philosophy* (2002), *Balanced Discourses* (2003), *The Formation of Chinese Civilization* (2005), *Chinese Sculpture* (2006), *Chinese Calligraphy* (2008), and *Chinese Ceramics* (2010). The books have had excellent reviews, and several have received prestigious accolades, including the Chinese National Book Award, for the Chinese edition of *Chinese Architecture* and the Hawkins Award, the highest award given by the Association of American Publishers for books of unusual distinction, for *Three Thousand Years of Chinese Painting*.

Yale graduate Ambassador Joseph Verner Reed, Under-Secretary-General of the United Nations, serves as adviser to the project. Ambassador Reed has led Yale University Press delegations to Beijing to negotiate with officials and to lead celebrations with senior officials of the Chinese government.

Lessons learned:

1. Be prepared for a multi-year planning and implementation schedule.
2. The Chinese partner must adhere to a wide array of requirements that will take time to wend their way through the processes. Plan for this and be patient.
3. Highlight the value of a project with high profile events (in this case the success of the first volume and presentation by President Jiang to President Clinton).
4. An emissary who is able to represent the university at critically important moments is invaluable.



Annex: Background paper on China's higher education landscape and Some Examples of University Engagements with Chinese Universities

1. China's higher education landscape

The latest developments in China's higher education sector are highlighted in China's latest "Outline of China's National Plan for Medium and Long-Term Education Reform and Development (2010-2020)" (国家中长期教育改革和发展规划) which was published on 29 July 2010. The salient points from the national plan are highlighted below:

- 1.1 By 2020, the enrolment rate in Chinese universities will rise from 24% to 40% of senior high school graduates.
- 1.2 The quality and quantity of research output is still a key feature of the education plan. Projects 985 and 211 will remain, further developing a group of potential world-class universities and focusing research support in a small group of universities.
- 1.3 Global competitiveness is highly fundamental in the reform plan, with a focus on knowledge and technology transfer. There are myriad science and technology parks around China's top universities and these have strong potential to develop significantly in the next decade.
- 1.4 Uneven economic development between the eastern and western regions of the country is recognized as a significant problem in China. Equity and access to all levels of quality education are aspired objectives, with the Chinese government pledging to provide equity and access to the ethnic minorities as well as the underprivileged in society.
- 1.5 The coming decade will see preferential investment for universities in central and western regions, and the Ministry of Education will promote partnerships between universities in the east with those in central and western China.
- 1.6 The other themes in the outline include improving teaching quality, the student learning experience and the employability of graduates. It seems likely to involve the introduction of more Western styles of learning and teaching, quality management and institutional autonomy – albeit with a Chinese flavor.
- 1.7 Internationalization is a key issue as well. This includes efforts to enhance international faculty and student exchange, with an understanding that international cooperation and partnerships in teaching and research will be essential for China to achieve its desired position on the global higher education arena.

2. Some examples of IARU University Engagements with Chinese Universities

With China gaining strong momentum as a powerful socio-economic and geopolitical force internationally, many top universities in the world are trying to engage China's higher education sector in collaborations. This section provides a brief overview of how IARU universities are engaging China in their strategies. The information below is available from the Universities' websites, and is not intended to be comprehensive.

2.1 Australian National University

2.1.1 The ANU China Institute

The ANU China Institute combines the research and teaching strengths of ANU's academics to highlight the work of China specialists in Australia. The institute works to promote China Studies at ANU and at the national and international levels, in consultation and collaboration with a range of organizations.

2.1.2 Contemporary China Centre

The Contemporary China Centre was set up in 1970 at the Australian National University as a research facility concerned with scholarly social science analysis of post-1949 China.

2.1.3 The Australian Centre on China in the World

In April 2010, the former Prime Minister of Australia Kevin Rudd announced that ANU will host a new national centre to lead national research and education on China. The Australian Centre on China in the World will aim to strengthen linkages inside and outside Australia, creating learning opportunities for researchers, educators, students, scholars, writers, diplomats, public servants, business, journalists and the wider public.

2.2 ETH Zurich

2.2.1. Swiss Bilateral Science and Technology Cooperation Program

ETH Zurich is the Leading House for Switzerland's bilateral science and technology cooperation program with China, founded on an MOU signed between Switzerland and China. The Cooperation Program aims to strengthen ties between Switzerland and China through research and academic collaborations, increase the visibility of Swiss universities and research institutions in China through faculty and student exchange, and encourage long-term institutional cooperation between Swiss and Chinese education and research institutions. About 100 projects are running currently, whereof 25 are initiated by researcher from ETH Zurich.

2.2.2. A Joint Laboratory between ETH Zurich and Shanghai Institutes for Biological Sciences

Initiated and jointly managed by Prof. Wilhelm Gruissem and Prof. Peng Zhang, Shanghai Center for Cassava Biotechnology (SCCB) is a joint "virtual laboratory" supported by Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences (SIBS, CAS) and Swiss Federal Institute of Technology Zurich (ETH Zurich). Since its founding in April 2007, the laboratory has expanded its involvement of both institutions to include their colleagues from the Chinese Academy of Tropical Agricultural Science and the laboratory of plant biochemistry, respectively. Both faculty and students are intensively involved in collaboration in field of cassava and sweet potato biotechnology.

2.2.3 Future Projects:

Many potential cooperation projects in the field of "Future City" are under discussion. These projects involve rebuild of cities destroyed by earthquakes, current city-design, and traffic management.

2.3 National University of Singapore

2.3.1 NUS' interactions with China include a range of collaborations from strategic research partnerships and joint laboratories to graduate and undergraduate student exchange programs. NUS had enjoyed a longstanding relationship with top universities in China like Peking, Tsinghua and Fudan universities.

2.3.2 NUS also established physical presence in China through 2 Overseas Colleges in Beijing (partnering with Tsinghua University) and Shanghai (partnering with Fudan University), as well as an office in Shanghai.

2.3.3 Research collaborations

There are several research collaborations between NUS and top Chinese universities. A few examples include the NUS-Tsinghua Extreme Search Centre, joint laboratories with Shandong University and Xiamen University, the Singapore, Peking and Oxford Research Enterprise for Water Eco-Efficiency (SPORE) and the Sino-Singapore Trilateral Agreement in Biotechnology with Tsinghua and Xiamen universities.

2.3.4 China-focused programs

There are a total of 4 double degree programs established between NUS and Chinese universities – the NUS-Peking University double degree MBA, the Master of Science in Transportation System and Management double degree with Tsinghua University, the Master of Arts in Chinese Language double degree with Peking University and the S3 Asia MBA double degree program with Fudan University and Korea University. There are also 2 Master programs conducted in Mandarin – the Master of Public Administration and Management, and the Asia Pacific Executive MBA.

Finally, different units within NUS conducts a range of executive programs catered for Chinese officials and senior-level businessmen, and these include the Advanced Government Management program for Chinese officials run by School of Business' Executive Education department, Executive Training in Public Policy and Management for government officials run by the Lee Kuan Yew School of Public Policy and the Singapore Public Administration program run by NUS Extension.

2.4 University of California, Berkeley

2.4.1 The Berkeley China Initiative (BCI)

<http://bci.berkeley.edu/>

The Berkeley China Initiative (BCI) is a multi-disciplinary effort designed to increase opportunities for intellectual exchange between the University of California, Berkeley and China. Programs supported by BCI include the teaching of China in courses across various disciplines at the University of California, Berkeley, increased opportunities for undergraduate students to gain exposure to China in USA and abroad, facilitation of training for graduate students through partnerships with Chinese universities and businesses as well as multidisciplinary research on Chinese studies.

2.4.2 Berkeley-Tsinghua Program for Advanced Studies in Psychology

<http://culcog.berkeley.edu/berkeleyprog.html>

A collaborative research program to study the psychological impact of the rapid economic and attendant social changes experienced by contemporary Chinese society. Examples of the types of questions being explored are: How are ordinary Chinese citizens coping with these historical changes? What are the psychological costs the Chinese have to pay for experiencing such dramatic cultural transformation? Is China psychologically ready to be a responsible and contributing member of the world? How would they deal with anticipated cultural conflicts of increasing international trades and exchanges?

2.4.3 Tsinghua-Berkeley Global Technology Entrepreneurship Program(GTE)

<http://cet.berkeley.edu/news>

A collaboration between Berkeley's Center for Entrepreneurship & Technology (CET) and Tsinghua University's Graduate School and School of Economics and Management's National Entrepreneurship Research Center. Based on an educational model developed by CET within Berkeley's School of Engineering, GTE will teach core concepts in technology entrepreneurship and innovation to a pilot group of 50 Tsinghua students (primarily graduate students from the engineering and science disciplines).

2.4.4 China Energy Group (LBNL/UC Berkeley)

<http://china.lbl.gov/>

While daunting, the challenge of meeting China's energy needs presents a wealth of opportunities, particularly in meeting demand through improved energy efficiency. The China Energy Group is committed to understanding those opportunities, and to exploring their implications for policy and business. The Group works collaboratively with energy researchers, suppliers, regulators, and consumers in China and elsewhere to better understand the dynamics of

energy use in China, to develop and enhance the capabilities of Chinese institutions that promote energy efficiency, and to create links between Chinese and international institutions.

2.4.5 **Inter-University Program in Chinese Language Studies (IUP)**

<http://ieas.berkeley.edu/iup/>

The Inter-University Program for Chinese Language Studies (IUP), is now in its 12th year in Beijing on the campus of Tsinghua University. IUP was originally established in Taipei, Taiwan in 1963 and in 1997 relocated to its current site in Beijing. IUP is the premier U.S.-sponsored Chinese language program intended for students who aspire to truly advanced competence, whether they be undergraduates, graduates, professionals, or established scholars. IUP currently offers a 32-week Academic Year Program, a 16-week Semester Option, and an 8-week Summer Intensive Program. All programs are located on the Tsinghua University campus in Beijing.

2.4.6 **Schistosomiasis In China**

<http://ehs.sph.berkeley.edu/china/>

A collaboration between Berkeley's School of Public Health and the Sichuan Institute of Parasitic Disease (SIPD) to understand and control schistosomiasis in the mountainous regions of Sichuan, by using mathematical modeling and Geographical Information System (GIS)/Remote Sensing (RS).

2.4.7 **Women in Science Program**

Funded by a Chinese donor, this program has two components: It provides seed money for collaborative research between UC Berkeley women scientists and their counterparts in China; and, it provides funding to cover the costs of lecture tours in China by UC Berkeley women scientists.

2.4.8 **Tsinghua-Berkeley Weeks**

http://berkeley.edu/news/media/releases/2010/03/19_tsinghuaweeks.html

Week-long conferences are held reciprocally in Beijing and Berkeley in order to explore collaborations in fields ranging from science, engineering and transportation to architecture, public policy, psychology, philosophy, history, social welfare and higher education.

2.5 **University of Cambridge**

Academic contact between the University of Cambridge and China has a distinguished history dating back to the appointment in 1888 of Sir Thomas Wade to the first professorship of Chinese Language in the UK.

Cambridge currently has twelve formal agreements with Chinese universities, the Chinese Academy of Sciences and Social Sciences and with Chinese banks and business corporations through the Cambridge Judge Business School.

In addition there is a wide range of academic links and collaborations (approximately 250 in total) with the majority of China's leading universities and many of the major research institutes. Among these are a number of emergent larger, key collaborations.

2.5.1 **MIT-Tsinghua University Low Carbon Energy University Alliance (LCEUA)**

The Cambridge University Department of Engineering is a partner in the MIT-Tsinghua University Low Carbon Energy University Alliance (LCEUA), which was launched in November 2009. Following the launch of LCEUA a call for projects led to a selection of four (value \$26m), which started from October 2010. A second call for projects has now been agreed. A two-day, substantially virtual, conference will take place at Tsinghua in March 2011 as part of Tsinghua's centenary celebrations.

2.5.2 **China Mobile**

Under an MoU with the China Mobile Communications Corporation the Computer Laboratory has taken forward a multidisciplinary consortium for a project with China Mobile, C-AWARE (Enabling Consumer Awareness of Carbon Footprint through Mobile Services innovation), which has successfully obtained EPSRC funding. There are also explorations for a study of mobile phone communications for healthcare.

2.5.3 **Water Management**

The Department of Geography collaborates with Chinese Academy of Social Sciences and the Chinese Academy of Sciences through two International grants: an ESRC International Network grant and EU-China River Basin Governance Research Network (RIBaGo) under the umbrella of Co-Reach, a joint funded research programme funded by CASS and European scholarly organisations. The aim of the project is to research the applicability of the European Water Framework Directive to China. The programme consists of a series of workshops, which intersect with specific research projects, and have created a widening research network.

2.5.4 **Astronomy Collaboration**

The Cambridge University Institute of Astronomy collaborates with the Kavli institute of Astronomy and Astrophysics at Peking University (KIAA) and the National Astronomical Observatory of China (NAOC) and has developed into a larger scale project in near field cosmology, beginning with a workshop in Beijing in 2008. IoA successfully secured supporting funding for early stage researchers through the EU FP7 Initial Training network programme under the title GREAT (Gaia Research for European Astronomy Training).

2.5.5 At the Cambridge Judge Business School Professor Peter Nolan (Sinyi Professor of Chinese Management) directs the Chinese Big Business Programme (CBBP) which organises regular meetings involving leading Chinese and international companies. The meetings are based on fieldwork conducted by Professor Nolan and his research team, both in China's leading indigenous firms and in many of the world's largest corporations.

2.5.6 **Cambridge Assessment and CUP**

Both Cambridge Assessment (the examinations arm of the University) and Cambridge University Press have extensive business interests in China.

2.6 **University of Copenhagen**

2.6.1 **Danish-Chinese Center for Molecular Nano-Electronics**

The Danish-Chinese Center for Molecular Nano-Electronics was established in 2009 at the Nano-Science Center, University of Copenhagen with funding from the Danish National Research Foundation. The Center is founded in cooperation with the National Natural Science Foundation of China (NSFC) with the goal of strengthening Danish-Chinese research collaborations.

2.6.2 **Joint research collaboration with Beijing Genomics Institute**

Beijing Genomics Institute (BGI) and the University of Copenhagen pledged a joint research cooperation focusing on the role of genes in cancer, obesity, and type 2 diabetes. The agreement will lead to additional educational opportunities for Danish and Chinese students, including brief and extended stays by Chinese students at the University of Copenhagen, and by Danish students in genetic research facilities in Beijing and BGI's headquarters in Shenzhen.

2.6.3 **Danish University Centre in Beijing**

The University of Copenhagen will be part of the Danish University Center that will be established in Beijing by 2013. The Danish University Center is to facilitate access to leading Chinese research environments and to enhance research and student exchanges between Denmark and China. The University Centre will also ensure that Danish enterprises in China have easier access to staff with strong insights of Danish and Chinese business environments and corporate culture.

The University Centre will be established in partnership with the Graduate University of Chinese Academy of Sciences. Danish researchers will get direct access to a network of leading research environments in China. Upon completion, the University Centre will accommodate 100 researchers, 75 PhD students and 300 master degree students, with 50% of them from Denmark. Employees of the more than 350 Danish enterprises in China may be offered supplementary education at the Centre.

2.7 University of Oxford

2.7.1 China Oxford Scholarship Fund

This scholarship fund was founded in 1992 to award 20 to 25 yearly scholarships worth about £30,000 per student to the best Chinese graduates for postgraduate studies at the University of Oxford, and then return to leadership positions in China. This helps fosters future Chinese leaders with strong links to Oxford.

2.7.2 University of Oxford China Centre

The China Centre is host to the Contemporary China Studies Program (CCSP) and joins academics from across the whole university, co-ordinating activities in all areas of study of China. It provides an interface for Oxford's relations with business, government and non-governmental institutions involved with China.

2.7.3 University of Oxford's development office in Hong Kong

The University of Oxford officially opened its office in Hong Kong in November 2007. The Hong Kong office is responsible for developing long-term relationships with the University's alumni in Hong Kong and China, and maintains an important ambassadorial role by facilitating interaction between Oxford and the wider community. The office also serves as a first point of contact for Hong Kong and Chinese students who are considering applying to the University of Oxford

2.7.4 Key research projects

The Kadoorie project run by Oxford's Clinical Trials Services Unit is enrolling 500,000 people in 10 centre across China in a path-breaking prospective study designed to identify environmental and genetic causes of premature death.

2.8 University of Tokyo

2.8.1 University of Tokyo Beijing office

The University of Tokyo established an office in Beijing, near to Tsinghua and Peking universities to promote university-level exchange and cooperation with top universities and research institutions in China. The office also serves to assist Chinese students interested in studying at the University of Tokyo, and to promote overseas studies by Japanese students at top Chinese universities. On a broader level, the Beijing office helps facilitates collaborations with academia, industry and government in China, as well as supports alumni activities in China.

2.8.2 University of Tokyo Graduate School of Engineering Wuxi office

The Wuxi office was set up by the School of Engineering to promote collaborations between Japan and China in education, research and industry-academic partnerships. Forums and conferences focusing on environment and energy technology are organized through the Wuxi office, and there are existing industry-academic projects related to environmentally friendly processing technology between Japanese industry and Chinese universities.

2.8.3 East Asia Liberal Arts Initiative

The University of Tokyo Liberal Arts Nanjing Exchange Center at Nanjing University was established to share liberal arts education with China. The Center sponsors forums on the liberal arts and supports Nanjing University's efforts to establish a new liberal arts division. There are plans to develop similar centre in other Chinese universities as well.

2.8.4 Joint research institutes and laboratories

The University of Tokyo also developed myriad joint laboratories and research programs with various partner institutions in China, for example, the China-Japan joint laboratory between the Institute of Medical Science and the Chinese Academy of Sciences in Beijing, and a joint research program between Institute of Medical Science and Harbin Veterinary Research Institute, Chinese Academy of Agricultural Sciences, amongst others.

2.9 Yale University

2.9.1 Yale University faculty and researchers work in sites spread across China, from Liaoning Province in the east to Xinjiang in the far west, from Beijing in the north to Hong Kong in the south. Currently, there are 115 joint and individual research projects underway in China. Twenty-six Yale departments and schools collaborate with 62 Chinese universities, government agencies, and independent research institutions.

Yale works with a variety of organizations including the Ministry of Education, Ministry of Health, Central Party School, China International Publishing Group, China Scholarship Council, Chinese National School of Administration, All-China Women's Federation, and National Library of China, as well as a number of hospitals (research and clinical projects) and companies (internships and training programs). These are in addition to university partnerships, the primary ones being with Peking, Tsinghua, Fudan, Shanghai Jiao Tong, and the Chinese University of Science and Technology. A full list may be found at <http://learn.yale.edu/world/data/>.

2.9.2 Yale's strategy of collaboration with China and the supporting ambitions and interests of Yale's deans and faculty are organized around three overarching goals outlined in International Framework: Yale's Agenda for 2009 to 2012 and before that the Internationalization of Yale: The Emerging Framework, which was published in 2005. The organizing principle for Yale's strategy is that we develop close partnerships with universities in China rather than developing independent operations.

2.9.3 Language Study

The Richard U. Light Fellowship provides an extraordinary resource, providing funding for over 100 undergraduate and graduate students to study Chinese for a semester or year in China. Nearly 15% of Yale's undergraduates who go abroad for international experience and up working, studying, or conduct independent research in China.

2.9.4 Peking University-Yale University Joint Undergraduate Program

Under this program, Yale students can spend a semester or a year in Beijing, undertaking courses taught in English by Yale and Peking University's professors. Yale students live in one of Peking University's regular student dormitories and share rooms with Chinese roommates.

2.9.5 Peking-Yale Joint Center (PYC) for Plant Molecular Genetics & Agrobiotechnology

A joint Yale-Peking research centre that aims to improve crop production by furthering understanding of plant biology was established in Peking University in 2001, with the long-term goal to support a multidisciplinary research program in plant biology, enabling independent research groups to work within a common facility, sharing resources and expertise.

2.9.6 Fudan-Yale Collaborations

The Fudan-Yale Biomedical Research Center is a joint initiative opened in November 2003 and directed by Professor Tian Xu of the Genetics Department at the Yale School of Medicine. The research conducted at the Fudan-Yale Center uses model organisms to study developmental biology and human diseases. The research work of the Center involves large genetic screens in mice and fruit flies to elucidate the basic mechanisms of disease development.

The Fudan-Yale Center for Education Cooperation sponsors lectures broadcast to Yale, video conferences, and exchanges.

2.9.7 Yale University Senior Leadership Programs

Yale faculty have developed and teach senior-level training programs for leaders and practitioners from China, including nursing and hospital leaders as well as environmental administrators and educators.

2.9.8 Yale-China Association

Founded in 1901, the Yale-China Association arranges one-to-one exchanges and programs in public health and nursing, legal education, English language instruction, American Studies, and cultural exchange for Chinese and American students. The Yale-China Association's work is characterized by close interaction among individuals and by long-term relationships with Chinese partner institutions and organizations designed to build Chinese institutional capacity. Therefore, the Association has also established and supported the development of numerous educational

institutions in China, including Xiangya School of Medicine, Xiangya Hospital, Huazhong University, and Yali Middle School—all of which continue to educate tens of thousands of students in central China annually.

3. Some examples of University Engagements with Chinese Universities

This section provides a brief overview of how some key universities in the US and UK are engaging China in their strategies. The information below is available from the Universities' websites, and is not intended to be comprehensive.

3.1 Harvard University

3.1.1 Harvard China Fund

Established in late 2006, the Harvard China Fund is Harvard University's "academic venture fund" for China. It supports teaching and research on China and promotes Harvard's presence in China. The University has allocated US\$15 million to support the Fund, and has made a commitment to raise US\$50 million over the Fund's first 10 years.

The Fund strengthens Harvard's presence in China and advances collaborative research on the major challenges facing China. With the establishment of the Fund and the opening of the Harvard Center in Shanghai, three core objectives had been identified for Harvard's commitment to China:

- (a) Partnerships: To promote interdisciplinary teaching and research about China, in collaboration with institutions across China.
- (b) Students: To prepare Harvard students for their lifelong engagement with China, and to support Chinese students coming to Harvard for graduate and professional education.
- (c) Presence: To strengthen Harvard's capacity to address challenges facing China through the new Harvard Center Shanghai.

Harvard China Fund also conducts a Faculty Grant Program for faculty to conduct research collaborations with Chinese faculty, a student internship program and a Winter Service Program in China for their students where they will complete a week of community service and research with Peking University students in Inner Mongolia, Tianjin or Beijing.

3.1.2 Harvard China Project

The Harvard China Project is a research program focused on China's atmospheric environment, collaborating across the schools of Harvard University and Chinese universities. It conducts interdisciplinary, peer-reviewed studies on air pollution and greenhouse gases in China, and their impacts on human health and the economy. The studies are designed to build knowledge and research capacities to inform policies aligning China's domestic priorities on environment and economic development with similar international strategies on climate change.

3.1.3 Leadership programs

Harvard Business School (HBS), together with Tsinghua University's School of Economics and Management and the China Europe International Business School (CEIBS), runs the Senior Executive Program for China, which addresses the business and management demands faced by Chinese executives.

HBS also runs the Global CEO Program for China, which was created by HBS, CEIBS, and IESE Business School to prepare Chinese chief executives to build world-class enterprises in the global economy.

Finally, HBS faculty members have helped academics from China learn to develop, write, and teach case studies - a method of teaching management and leadership pioneered by the School soon after its founding in 1908.

3.2 Johns Hopkins University

The Johns Hopkins University-Nanjing University Center for Chinese and American Studies was created in 1986 to foster an environment of close social and intellectual exchanges among Chinese and international students as well as faculty over a period of one year. The intense exposure to each other's history, culture, contemporary thought and society is believed to enhance strong international relations.

The centre also established a two-year Master of Arts in International Studies to complement the existing certificate program. More than 2,000 graduates from the centre are working in diplomacy, business, academia, journalism, government and finance in China, the United States and other countries.

3.3 Stanford University

3.3.1 Stanford China Program (SCP)

This is a research-based program that facilitates multidisciplinary, social science oriented research on contemporary China, with an emphasis on policy-relevant research to train Stanford students for broader and deeper interactions with China. This program involves students in joint research projects and workshops within China, and had developed strong networks with officials from a wide range of agencies and sectors in China.

3.3.2 Stanford-China Executive Leadership programs

Stanford's Centre for Sustainable Development and Global Competitiveness partners China's Development Research Center of the State Council to offer short courses for China's executive leaders that promote sustainable development practices.

3.4 University of Liverpool

The University of Liverpool partnered with Xi'an Jiaotong University in 2006 to establish the Xi'an Jiaotong-Liverpool University (XJTLU), an independent university based in Suzhou, offering English-language degree programs in the areas of science, engineering and management.

Partners in XJTLU include Suzhou Industrial Park (SIP) who provided the land and buildings through the Suzhou Dushu Lake Higher Education Town as well as Laureate Education, the online commercial partner of University of Liverpool who provided their capital investment.

Xi'an Jiaotong University also collaborated with one of their commercial partners to match the investment from the University of Liverpool. When fully developed, the university aims to have a student population between eight to ten thousand students, from across China, other parts of Asia and the rest of the world.

3.5 University of Nottingham

The University of Nottingham established a full-fledged university in the city of Ningbo, Zhejiang province. The campus is a joint venture partnership with the Wanli Education Group in China, and is the first Sino-Foreign university in China approved by the Chinese Ministry of Education. The university is sponsored by the city of Ningbo and is run by the University of Nottingham UK with cooperation from Zhejiang Wanli University.

All undergraduate and postgraduate programs in University of Nottingham Ningbo are conducted entirely in English with the same teaching and evaluation standards as at University of Nottingham in the UK. All students have the opportunity to study at the University of Nottingham UK or to go as exchange or study abroad students to study at other universities around the world.

4 Some Examples of Inter-University Collaborations on China-related programs

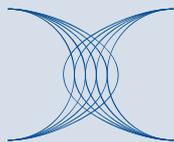
4.1 Princeton-Harvard China and the World Program

This program offers post-doctoral fellowships to encourage graduate students and new PhD students to integrate their knowledge of international relations as a discipline with their knowledge of China. The program provides an opportunity for scholars to advance their research, forge interdisciplinary ties with China experts in other fields as well as with policy makers and intellectuals without China expertise, and to access the resources in international relations and China that both Princeton and Harvard have to offer.

4.2 The British Inter-University China Centre (BICC)

BICC is a joint venture between Oxford, Bristol, and Manchester universities. It has been awarded a grant of £5 million from the Higher Education Funding Council for England, the Economic and Social Research Council and the Arts and Humanities Research Council with the aim of making it Britain's leading centre for research and teaching on China and Chinese language.

4.3 The Low Carbon Energy University Alliance (LCEUA) is an alliance between Tsinghua University, the University of Cambridge, and MIT, created to conduct collaborative scientific research on low carbon energy technologies and to conduct policy research and analysis on low carbon energy solutions, with a particular focus on China.



IARU Center in Peking University (exploratory)

Purpose

There are a number of possibilities for an IARU Centre located in Beijing. It can be a combination of focus areas, and here are some options to consider:

- Student mobility and student-centric activities
- Alumni related activities
- Research initiatives – either in the form of existing IARU collaborations or new areas of research partnership
- New collaborations, or the growth of new activities for existing initiatives
- Administrative purposes – a short-term base for staff or faculty for e.g. recruitments, meetings and staff exchanges

Regular events will make the Centre lively, and can be used for administrative related activities such as recruitment for student exchange or postgraduate studies; research related conferences, guest lectures; and networking sessions for alumni.

It was proposed that such a Centre can begin its operations with a focus on students and alumni. This suggestion is based on the observation that many of IARU's community members are now in China, and that it would be beneficial to have a physical base to serve and cater mainly to students and alumni. Generally, the Alliance also tends to respond well to student-centric activities (for example, the Global Summer Program) and it was thought that such a focus would form a strong foundation of what we can do as an Alliance in Beida.

Likewise, the Alliance which is formed by research-intensive universities can also look into collaboration on a research area on existing IARU initiatives or on a new subject. It may require a bottom up approach as research collaborations require a very strong project lead and institutional commitment to become successful.

Benefits & Motivation

Most tangible benefits are stronger relations between IARU institutions with Beida, and with each other if the Centre is well utilized. What are some other possible motivations? Some possibilities mentioned at the previous meetings include:

- Creating a deeper footprint for IARU in fast rising China at one of its top universities
- Build ties with the Chinese government and industries for continuous dialogue on education, research and culture
- Tap on funding agencies around the world, and in particular from Beijing, who may be interested in funding transnational research initiatives

Structure & Organization

It is important to discuss and decide how this centre will be organized and structured.

- Will it be a permanent centre?
- Can we function effectively if we do not have a majority of the IARU institutions participating in this Centre?
- Some of our partners have a physical base in Beijing, or other parts of China (e.g. Shanghai and Hong Kong). How can we coordinate our efforts? Partners with an existing base in Beijing may not require a second one.
- Does an IARU Centre in Beida mean that we are collaborating only exclusively with our host?

Resourcing

- How many people (IARU Centre Coordinators) are needed to staff the centre, if at all staff members are required?
- Can we consider rotation of staff, e.g. 3 months, at the IARU Centre to coordinate visitors and run events, in addition to their own existing functions?
- How much space do we need? Essentially, a small office, equipped with supplies including the use of 1 or 2 meeting rooms? Rental costs in Beijing can be quite high.
- What are the funding options? As IARU is unable to fully support the centre via central funding, can participating universities contribute to its operations costs?
- Can we source for sponsorship? Who can we approach?

Once Presidents have a firm sense purpose for the Centre, we can to look into the operational details or running and sustaining such a Centre if the Alliances chooses to proceed with this idea.