Cross-regional University Partnerships in China’s Western Development

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(Riga, 7.12.2009)
1. Question
2. Context
3. China
4. Tsinghua
5. Conclusions
1. Question

*Creating sustainable learning and knowledge exchange environments across cities and regions*

What and how does the university contribute to regional development?

- fundamentally a spatial issue
- university-region engagement
Tsinghua University

• ‘Young’ & ‘old’
• Big
• Comprehensive
• International
• Green

• Found in 1911
• Top 1~2 in China
• *The Times Ranking 2009:* 49
• Campus: 384 acres
• 35,400 students (postgraduate 21,000)
• 2,500 international students
• 7,062 faculty & staff (2,829 FT faculty)
• 15 colleges, 55 departments, 45 labs
• 50 spin-off companies
• Engineering & Science, Medicine
  Arts & Humanities, social sciences
• Undergraduate: 62 programmes
• Postgraduate: 230 programmes
Green Campus

• Environment-friendly, resource-conserving
• Green in education, green technology, and green culture
Science Parks and Research Institutes

- Tsinghua Science Park in Beijing
  + 10 regional science parks
- 4 regional Research Institutes
Spatial and locational patterns of Chinese higher education

2. CONTEXT
Chinese Education System

- **Pre-School Education**
  - Age: 3 to 5
  - Kindergarten (3 years)

- **Primary Education**
  - Age: 6 to 12
  - Primary School (6 years)

- **Secondary Education**
  - Age: 13 to 18
  - Junior Secondary School (3 years)
  - Senior Secondary School (3 years)
  - Secondary Vocational School (3 years)

- **Higher Education**
  - Age: 19 to 30
  - Higher Vocational School (2-3 years)
  - Undergraduate (4-5 years)
  - Master (2-3 years)
  - Doctor (3-5 years)
Challenges to Chinese HE

A HE system from *big* to *strong*
(2008: 29 million HE students, GRE 23.3%)

- **Disparities**
  - East
  - West

- **Hierarchy**
  - National HEIs
  - Regional HEIs

- **Excellence**
  - Research U
  - World-class

- **Expansion**
  - Mass HE
  - Lifelong education

*Creating sustainable learning & knowledge exchange environments across cities and regions*
Chinese HE System

- Governance
- Teaching & Learning
- Research
- Infrastructure
- Culture
- Internationalisation
Land
Population Density of China (person/km²)

People (2008: 1.3 billion)
China Western Development Strategy
(since 1999)
HE Enrolment

Higher Education Gross Enrolment Rate
2007, mainland China

- 50% - 60% (3)
- 30% - 40% (4)
- 20% - 29% (12)
- 15% - 19% (10)
- 10% - 14% (2)
Number of Student in General HEIs
1998, 2007, mainland China

- 1,130,000 to 1,480,000 (3)
- 760,000 to 1,130,000 (9)
- 390,000 to 760,000 (9)
- 20,000 to 390,000 (10)
3. EAST-WEST UNIVERSITY PARTNERSHIPS (SINCE 2001)
E13 + W13 partners (2001)

East-West University Partnerships
mainland China
- Region with Supporting HEIs
- Region with Receiving HEIs
- Region with both Supporting and Receiving HEIs
- Region without partnership HEI
E64 + W38 partners (2009)

East-West University Partnerships mainland China
- Red: Region with Supporting HEIs
- Green: Region with Receiving HEIs
- Yellow: Region with both Supporting and Receiving HEIs
- White: Region without partnership HEI
Hand-in-hand

4. TSINGHUA-QINGHAI PARTNERSHIP (SINCE 2001)
## Tsinghua-Qinghai Partnership (since 2001)

### Qinghai
- Found in 1958
- Top 300 in 2001 → Top 110 in 2008
- **Teaching-research university**
  - 21,500 students (p.g. 480)
  - 4,177 faculty & staff (1,189 faculty)
  - 10 colleges, 28 departments
  - Engineering & Science, Medicine, Agriculture, Economics & Management, Law
  - Undergraduate: 61 programmes
  - Postgraduate: 20 programmes
  - Campus: 192 acres

### Tsinghua
- Found in 1911
- Top 1~2 in China
- **Research university**
  - 35,400 students (p.g. 21,000)
  - 7,062 faculty & staff (2,829 faculty)
  - 15 colleges, 55 departments
  - Engineering & Science, Medicine, Arts and Humanities
  - Undergraduate: 62 programmes
  - Postgraduate: 230 programmes
  - Campus: 384 acres
Tsinghua Strategy

**Leadership**
- T-Q partnership as part of Tsinghua’s world-class university strategy

**Objective**
- Teaching & learning
- Give + create: faculty + curricula + lab development

**Organisation**
- T-Q coordination office: annual visits & meetings
- University - college/department - professor delegations

**Outreach**
- National government: Education, Finance, etc.
- Regional and local governments
- China U. of Geology; Northwest Agriculture & Forestry U.

**Research**
- Since 2006: *Theory and practice of partnerships between HEIs in eastern and western regions in China*
Curriculum Development

- General foundation courses
- Specialised foundation courses
- Key labs
- E-learning
## Tsinghua E-courses *(Satellite/internet)*

<table>
<thead>
<tr>
<th>General foundational course (spring 2006-07)</th>
<th>Mode of Delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 History of science &amp; technology</td>
<td>Live</td>
</tr>
<tr>
<td>2 History of Art</td>
<td>Record</td>
</tr>
<tr>
<td>3 History of western philosophy</td>
<td>Record</td>
</tr>
<tr>
<td>4 International politics and China</td>
<td>Live</td>
</tr>
<tr>
<td>5 Selected readings of Confucian classics</td>
<td>Live</td>
</tr>
<tr>
<td>6 Chinese culture and antiques</td>
<td>Live</td>
</tr>
<tr>
<td>7 Classic Chinese novels</td>
<td>Live</td>
</tr>
<tr>
<td>8 Selected readings of western masterpieces</td>
<td>Live</td>
</tr>
<tr>
<td>9 Western literary thoughts and works</td>
<td>Record</td>
</tr>
<tr>
<td>10 Psychology for college student</td>
<td>Record</td>
</tr>
</tbody>
</table>
# Academic Development

**(2001 - 2006)**

<table>
<thead>
<tr>
<th>Tsinghua College/Department</th>
<th>Qinghai College/Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civil engineering</td>
<td>Building engineering</td>
</tr>
<tr>
<td>Hydraulic engineering</td>
<td>Hydraulic engineering</td>
</tr>
<tr>
<td>Electrical engineering</td>
<td>Mechanical engineering</td>
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<tr>
<td>Material engineering</td>
<td>Chemical engineering</td>
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<tr>
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</tr>
<tr>
<td>Life sciences</td>
<td>Life sciences</td>
</tr>
<tr>
<td>Economics &amp; Management</td>
<td>Finance &amp; Economics</td>
</tr>
</tbody>
</table>

**T-Q college/department strategic planning**

- Regional need
- Institutional need

**Development partnerships**

- Faculty
- Curriculum
- Postgraduate education
- Lab
- Research
- Service
# Mechanical Engineering (2004-2006)

<table>
<thead>
<tr>
<th>Year</th>
<th>Research</th>
<th>Curriculum</th>
<th>Programme</th>
<th>Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>Co-applied for regional research contracts</td>
<td>Co-developed core courses</td>
<td>Co-developed master’s programmes</td>
<td>Co-planned a metalworking site infrastructure</td>
</tr>
<tr>
<td>2005</td>
<td>Q → T: 2 visiting fellowships</td>
<td>Co-build “Engineering material multimedia lab”</td>
<td>T → Q: 2 visiting professors + co-research projects</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>Co-organised a professional engineering master programme</td>
<td>Q → T: 4 visiting fellowships</td>
<td>T → Q: Dean and over 50 visiting faculties and staff</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Faculty</th>
<th>Curriculum</th>
<th>Lab</th>
<th>Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>Q → T: 2 visiting fellowships</td>
<td>Co-developed core courses and academic planning</td>
<td>Co-planned and implemented lab development</td>
<td>T → Q: Provided ¥ 30,000 to use Tsinghua’s national labs</td>
</tr>
</tbody>
</table>
## Computer Science & Technology (2004-2006)

<table>
<thead>
<tr>
<th>Leadership</th>
<th>• Tsinghua professors elected as the 1st dean and deputy dean</th>
</tr>
</thead>
</table>
| Faculty                                                                   | • Senior Tsinghua faculties paired with junior Qinghai faculties  
                          • Varieties of faculty development activities |
| Curriculum                                                                 | • Tsinghua design: curriculum, textbooks and learning materials  
                          • Core courses: undertook by Tsinghua faculties actual and virtual  
                          • Enhancing university-wide computer courses |
| Lab                                                                        | • Tsinghua design: lab and practice site  
                          • Tsinghua giving: equipment and books  
                          • Created a wireless campus  
                          • Won regional and national funding for building key computer labs |
| Student                                                                    | • Tsinghua faculties as tutors  
                          • Enriching student affairs  
                          • Tsinghua alumni fundraising for scholarships |
| Organisation                                                               | • Committees building  
                          • Introducing performance-based evaluation |
Qinghai University’s Progress

2001: 'Pass' in MOE evaluation
2002: Co-support by Qinghai gov & the MOE
2003: The 1st master programme in agriculture
2004: 'Excellence' in MOE evaluation
2005-06: The 1st master programmes in law and engineering; the 1st PhD programmes in medicine
2007: Entering 'the premier league' HEIs
2008: Entering Project 211
Partnerships for sustainable development

5. CONCLUSIONS
Research & Consulting

Research project (2006-2008)
- Theory and practice of partnerships between HEIs in eastern and western regions in China

Research project (2007-2010)
- An analysis of the spatial patterns of Chinese HE resources and strategies for coordinated national development through university-region engagement

Policy consulting (since 2001)
- Central-regional-local governments eg → China higher education development strategy (2010-2020)

Institutional consulting (since 2001)
- E-W partnership universities: Training, evaluation, research, public promotion...
Lessons & Experience

- Funding
- Purpose
- Mobility
- Place & space
Coordinated HE Development

Higher education system:

- space of places
- space of flows
- spheres of influence

The issue of scale

- local
- regional
- national
- global/international

Flow

- enriching partnership

Place

- enhancing quality

Space

- strengthening competitiveness
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