

BACES Cluster: EU-China Cross-Border Innovation & Technology Transfer Projects

BACES Meeting

2 May 2017

Jan Cornelis

Context (1/2)

- Universities are a.o. increasingly viewed as ***motors for economic development, and societal innovation***.
- Universities are becoming ***irreversibly embedded within international networks*** on education, research and societal/economic valorization.
- These evolutions create a tension between the goals of ***regional*** innovation agencies and policy makers and the ***international scope*** of many of the valorization initiatives (**apparent contradiction** or asset for new innovation scales?).

While funding of innovation projects and intellectual property legislation are often regionally organized AND entrepreneurial motivation might be culturally determined, the scope of university valorization projects (production, expertise, know how and technology, sales...) is global.

Context (2/2)

- Especially in the field of innovation & valorization of research results, **University-University knowledge transfer** has hardly been explored in theory and practice.

All this, raises the question: *How can University-University collaboration create societal and economic impact in an international context?*
The cluster will cover the research aspects related to the specific case of Europe and China

Members – 15/12/2016 (to be refined and corrected)

Coordinator:

Jan Cornelis (VUB) – Prof. Dept. Electronics and informatics - ETRO

Members:

Hichem Sahli (VUB) – Prof. Dept. Electronics and Informatics - ETRO

Thomas Crispeels (VUB) - Prof. Business Technology and Operations - BUTO

Kevin De Moortel (VUB) – PhD researcher BUTO – “International technology transfer between Chinese and European universities.”

ZHAO Yanyun (RUC) - Dean, Prof. School of Statistics

Feng Zhen (RUC) - School of statistics (associate professor);

XIN Gu (SCU) – Head of Business School SCU (spokesperson: Wang Meng - Assistant to Xin Gu)

Chyu Minking (SCU) - Professor of Engineering, associate dean for international initiatives;

Members (continued)

Members, external to BACES:

North Western Polytechnical University

Gao Angel (NPU) - Assistant to Zhang Xiaochuan (Deputy director of office of sciences and social sciences research, department of S&T management)

Yang Yunxia (NPU) - Vice dean, school of humanities, department of Economics and Law.

Tentative members, external to BACES

Beihang University

CHEN Xiangdong (BU) - Professor international technology transfer and innovation studies,

FANG Hong (BU) - Professor of International business strategy, Foreign Direct Investment, International Transfer of Technology, International Trade and Environment at the School of Economics and Management.

Competences needed in the team

- The cluster will ***confront theory and practice*** and explore the required multidisciplinary aspects needed for the domain.
- The cluster has the capacity to turn the mentioned **apparent contradiction** in **new innovation opportunities**

Overview of main projects/activities hitherto

- China Mission: October 2016
- UCIP project
- Joint Research Center on International Technology Transfer with NPU
- CSC applications/topics
- Confucius Institute Project Proposal: Chinese Academic Entrepreneurs together with SU

UCIP Project

- 2016 - 2018
- Funded by the Brussels Capital Region's (BCR) Government: Innoviris
- VUB Promoters
 - Prof. dr. em. Jan Cornelis
 - Prof. dr. Thomas Crispeels*
 - Prof. dr. Nikolay Dentchev
 - Prof. dr. Heidi Ottevaere
 - Prof. dr. Hichem Sahli
 - Prof. dr. em. Marc Zabeau



- Human Resources
 - Promotors and Co-Promotors
 - Marc Goldchstein (BUTO and VUB TechTransfer)
 - Research associate and project coordinator: Kevin De Moortel
 - Additional resources applied for (e.g. CSC, BACES)
 - IUTT Network

The starting point

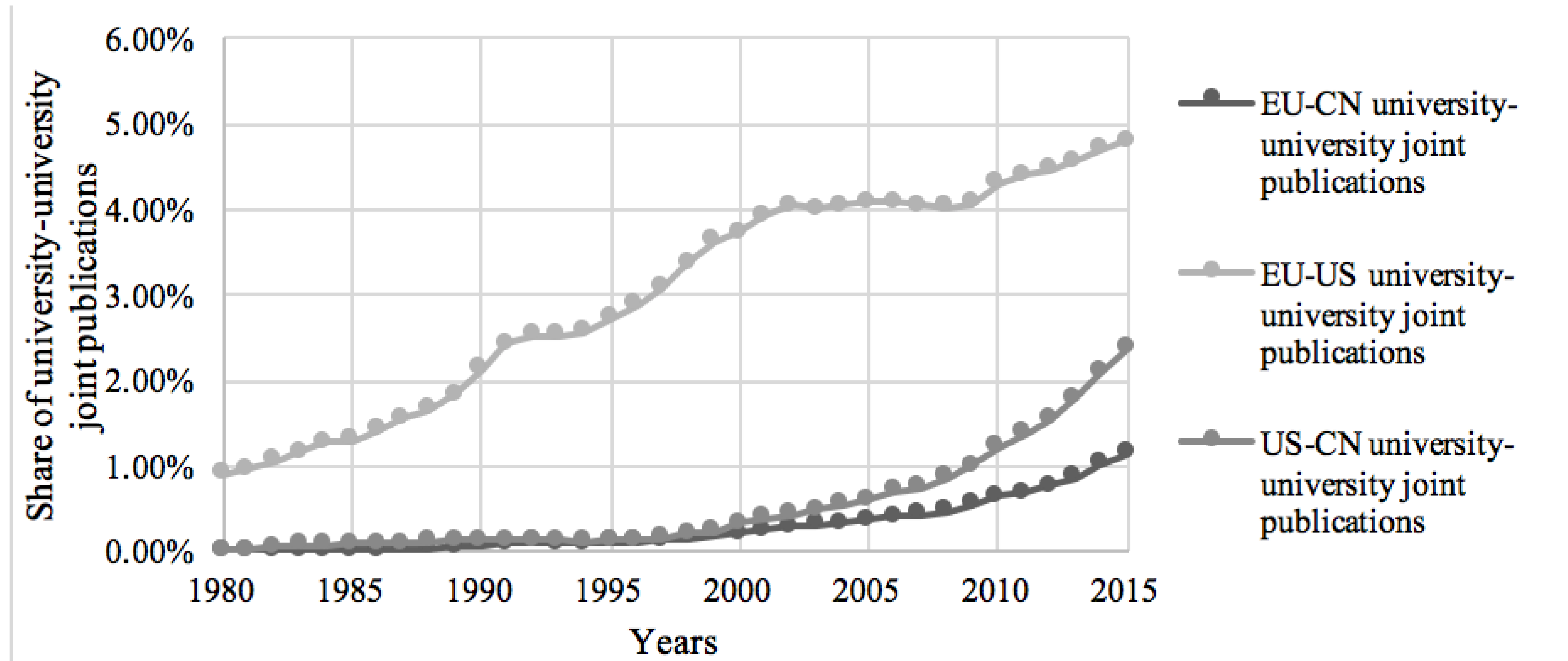


Figure 1. The rise of the share of international university-university joint publications between 1980 and 2015 (Source: Web of Science, own set-up)

De Moortel & Crispeels, 2017

Follow-up

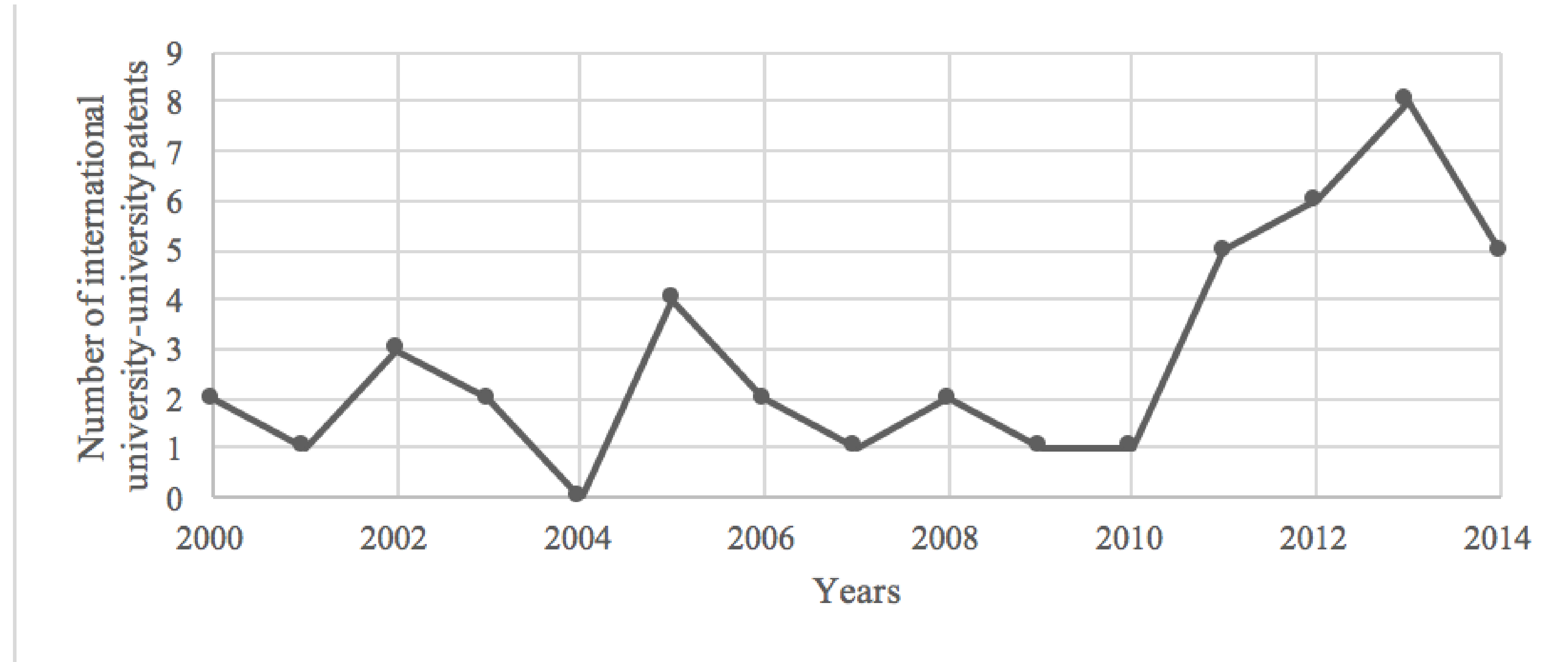


Figure 2. Emergence of patenting between EU-CN, CH-US, EU-US universities based on WO applications (Source: Global Patent Index from the European Patent Office, own set-up)

De Moortel & Crispeels, 2017

The role of universities

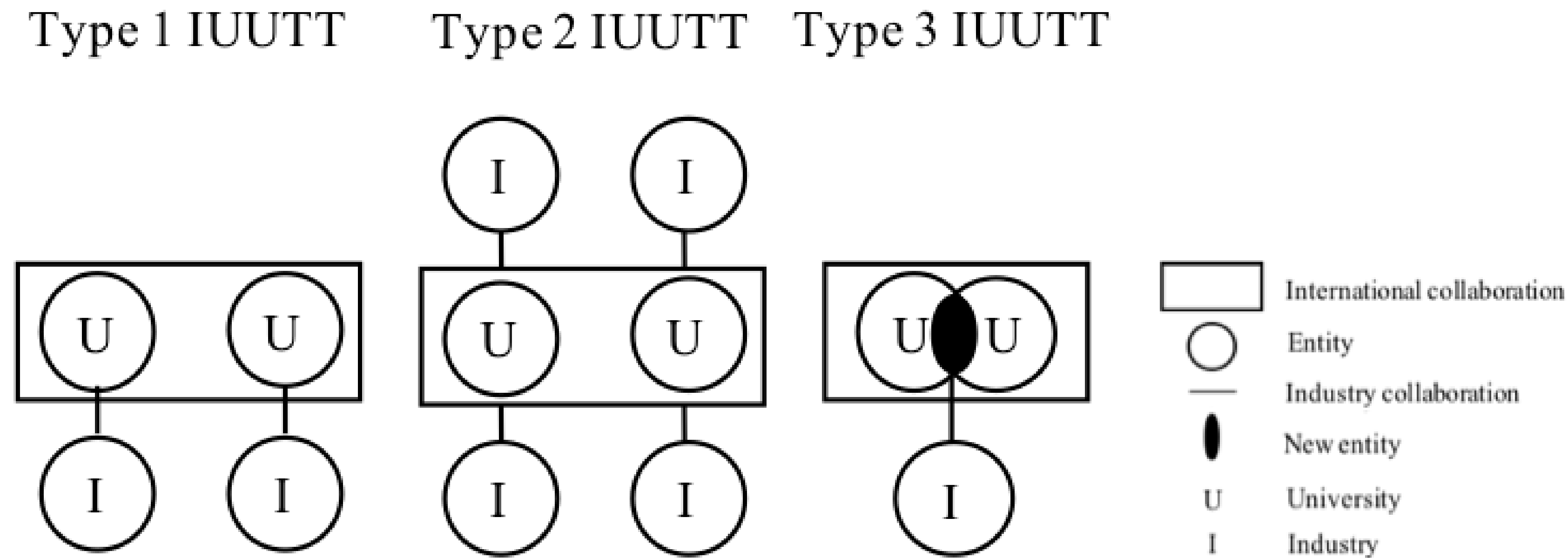


Figure 3. Three types of international university-university technology transfer

Output

- Accepted Conference Submission: International Conference on Strategic Management
 - *"International University-University Technology Transfer as Strategic Alliances"*
 - Chengdu, China
- Special Issue Submission: Technological Entrepreneurship and Socio-Economic Change in Emerging Economies
 - *"International University-University Technology Transfer: Entry Mode, Pathway, and Chinese Inverse Logic"*
 - Journal of Technological Forecasting and Social Change
- Working document on guidelines
 - *"Towards International Technology Transfer between EU and China: 10 guidelines for companies and universities"*

UCIP Project



Brussels High-Tech
Ecosystem

Chengdu High-
Tech Ecosystem

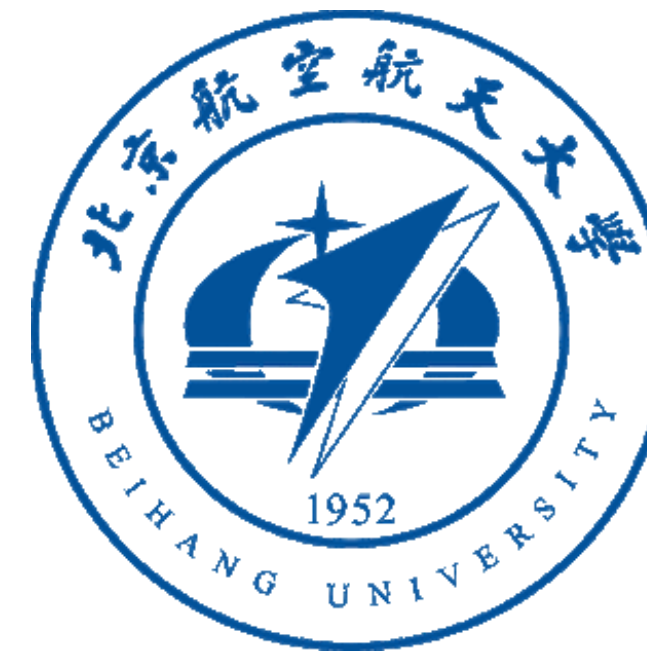


Multilayered
Collaboration

Xi'an High-Tech
Ecosystem



Beijing High-Tech
Ecosystem



UCIP: Workshop 1, 26-27 April 2017

The Role of Universities in EU-China Innovation

10:00 – 11:00

Keynote Speaker 1 and discussion
Pascal Coppens – Sinnolabs

11:00 – 11:15

Coffee Break

11:15 – 12:15

Keynote Speaker 2 and discussion
Hugo Loosvelt – VUB TechTransfer

12:15 – 13:15

Lunch

13:15 – 14:30

Presentation of UCIP Partners

14:30 – 14:45

Coffee Break and Networking

14:45 – 16:30

Panel 1 (Chair: Jan Cornelis) & discussion
Role of universities in EU-China Innovation

16:30 – 16:40

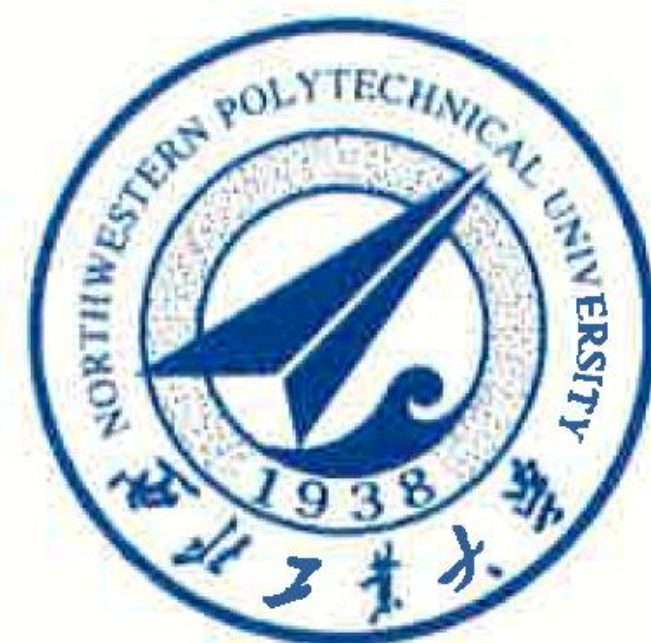
Concluding Remarks

What is Sinnolabs?

- **Shanghai Innovation Labs**
- A Growth Accelerator in Shanghai for Belgian and European SMEs
- Mission is to source and select SMEs with real China potential, mentor closely their China entry and accelerate their learning and successes in China

Joint Research Center on International Technology Transfer (°2017)

NPU VUB AGREEMENT ON SETTING UP JOINT RESEARCH CENTER OF TECHNOLOGY TRANSFER



NORTHWESTERN POLYTECHNICAL UNIVERSITY AND VRIJE UNIVERSITEIT BRUSSEL - AGREEMENT ON STUDY OF INTERNATIONAL TECHNOLOGY TRANSFER MODELS

University Centred International Platforms with socio-economic impact in
China and the Brussels Capital Region

CSC Proposals

- PhD TOPIC 1: University Innovation and Knowledge & Technology Transfer policies:
 - Double degree in the framework of BACES (1 year VUB, 3 years Renmin University of China)
 - Promoters: Thomas Crispeels (VUB) and Feng Zhen (RUC)
 - Co-promoters: Jan Cornelis (VUB), Hichem Sahli (VUB)
 - Candidate: Ye Yindan (RUC, applied) (叶银丹) – **patent networks**
- PhD TOPIC 2: Academic Entrepreneurship in China – International Technology Transfer Projects
 - Double degree, Generic CSC (2 years VUB, 2 years SU)
 - Promoters: Thomas Crispeels (VUB) and Xin Gu (SU)
 - Co-promoter: Hichem Sahli (VUB)
 - No candidates (expected candidate of SU) – **project networks and consortia**

CI Project Proposal

- Chinese Academic Entrepreneurs: Who are they and what drives them?
 - VUB: Prof. dr. Thomas Crispeels and Prof. dr. Hichem Sahli
 - SU: Prof. dr. Gu Xin

October 2017 – UCIP China workshop

Cases – licensing and technology offers – matching