VN-UK Education Forum; 11 September 2015

Unlocking innovation: Innovation China UK (ICUK)

David Sadler

Vice Principal (International)
Queen Mary University of London

Barriers to UK-China Collaboration and Knowledge Transfer

Key issues other than language, culture and practice:

- 'I need to find the right collaborators'
- 'I need funding'
- 'I need to work with industry'
- Joint project management and performance management
- How to protect the intellectual property and manage ownership
- Does the technology ACTUALLY have a market
- What is the best commercialisation strategy for this technology
- How to share exploitation rights & benefits

Innovation China UK (ICUK)- Phase 1

- ICUK project launched in 2007 by 5 research intensive HEIs to promote knowledge transfer with China

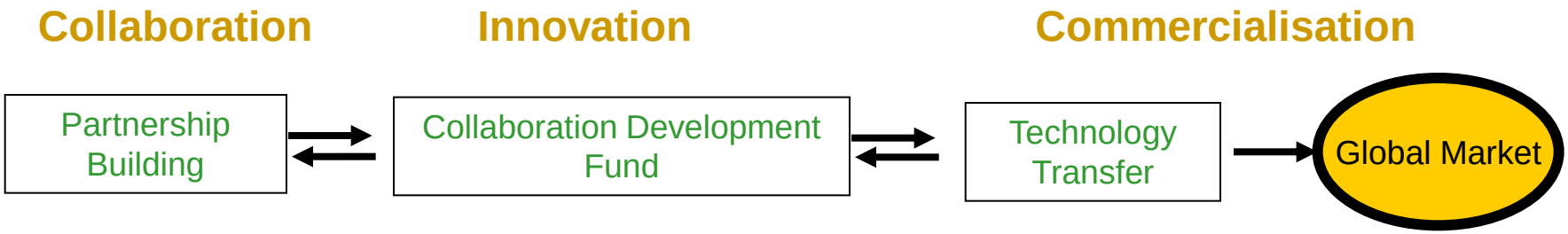
- Received £5 million in UK funding (HEFCE/BIS), with MoST co-ordinating funding in China

- Focused areas:
  1) Regenerative medicine and infectious diseases
  2) Environment and energy
  3) Nanotechnology and materials
  4) Advance Engineering and ICT

Innovation China UK
中英科技创新计划

Innovation China UK (ICUK) – Phase 1

- Collaboration development fund – two categories of award – ‘Partnership Grant’ & ‘Proof of Concept Fund’
- Technology Portfolio
- Created Knowledge Network



Innovation China UK (ICUK) – Evaluation

Outcomes

- Partnerships initiated with over 50 Chinese HEIs
- Over 100 industrial partners participated in R&D and commercialisation activities
- 14 new patents filed
- 5 joint projects with technology licensed to UK & Chinese companies
- 1 UK spin-out

Innovation China UK
中英科技创新计划

Innovation China UK (ICUK) – Evaluation

- Most collaborations based on pre-existing links…BUT.. **new** and varied (both commercial and academic) contacts were made through the projects ICUK funded

- In many cases the collaboration continued and follow-on funding obtained

- ICUK built a reputation in China that helped obtain Chinese funding and other Chinese partners

- Project Managers played a key role supporting project holders (in dealing with uncertainty and cultural differences) and raised awareness of ICUK services among University researchers

Innovation China UK
中英科技创新计划

Sino-British Materials Research Institute

Built on UK EPSRC and SCU support:

- Workshops on Organic Spintronics, Biomaterials,
- Energy Materials
- 50 Academic Exchanges
- Joint PhD programme
- 250m^2 new laboratory including clean-room for organic electronics research (1.3m RMB support)
- 7m RMB capital investment in equipment
- 4 new full time staff (3 international) and 3 part time with 6 more to follow
- 5m RMB in research grant applications in 2014
- Institute aspires to be world centre for hybrid organic/silicon photonics research in future

Innovation China UK (ICUK) – Phase 2

- Since 2011 ICUK programme office remains at QMUL funded by HEIF
- Worked on 3 year initiative ‘UK-China Innovation & Knowledge Transfer’ funded by BIS in organising a series of events in support of technology partnering
- Events focused on biopharma, agri-tech, sustainable building, Internet of Things, environmental protection and high-value manufacturing

Innovation China UK
中英科技创新计划

Innovation China UK (ICUK) – Phase 2

Outcomes

- Total number of funded R&D partnerships (projects): 20
- Total number of UK-China research centre established: 2
- Total number of business joint ventures: 5
- Total number of commercial agreements(distribution/licensing): 3
- R&D funding/investment secured from the UK(£): 5,107,000
- R&D funding/investment secured from China(£): 3,771,000

Innovation China UK
中英科技创新计划

Innovation China UK (ICUK) – Phase 2

Outcomes cont.

- Commercial income achieved so far (£): 1,568,250 (several participants have opted to keep commercial income confidential so this figure could well fall short from the actual incomes)

- Estimated R&D and commercial incomes for next 5 years (£): 42,910,000

Innovation China UK
中英科技创新计划

Lessons learnt

Establishing a bilateral programme:

- Consult, consult, consult
- Understand the innovation framework of partner country
- Consider the speed of decision-making
- Be aware of policy framework & internal management systems
- Influence policy through wide engagement
- UK long-term commitment is needed

Innovation China UK
中英科技创新计划

Lessons learnt

Implementing joint projects:

- Set expectations with partner from the beginning
- Consider how to access local funding from the start
- Be aware of differences in R&D management systems

Other dynamics to consider:

- Involvement of industry & concerns over IPR
- Extent to which contract research, technology licensing and joint venture is currently practiced

Queen Mary

University of London