



2016 ADB International Skills Forum Innovative Practices in Skills Development

19–21 September 2016 • ADB Headquarters, Manila, Philippines

University-industry linkage in China

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*University-industry linkage in
China*

[Session IV]



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The Rise of National Systems of Innovation

- Freeman (1987): Technology and Economic Performance: Lessons from Japan
- OECD Technology/Economy Programme (1988)
- Lundvall (1992) National Systems of Innovation
- Nelson (1993) contributed with a slightly different perspective, comparing different nations' institutional set-ups and their economic performance.



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Triple Helix Model (Etzkowitz & Leydesdorff, 1995,1997)

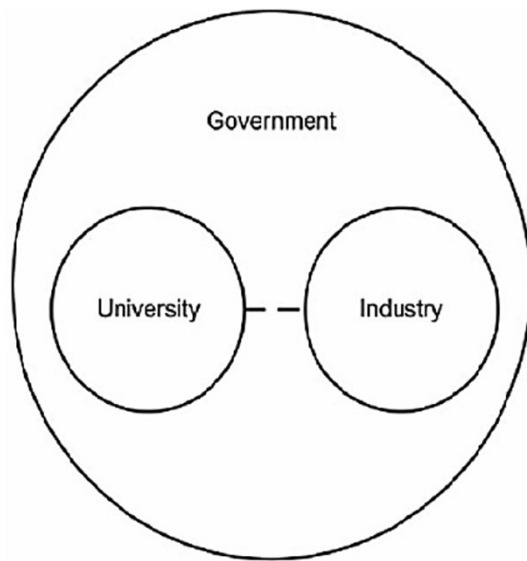


Figure 1. Statist model.

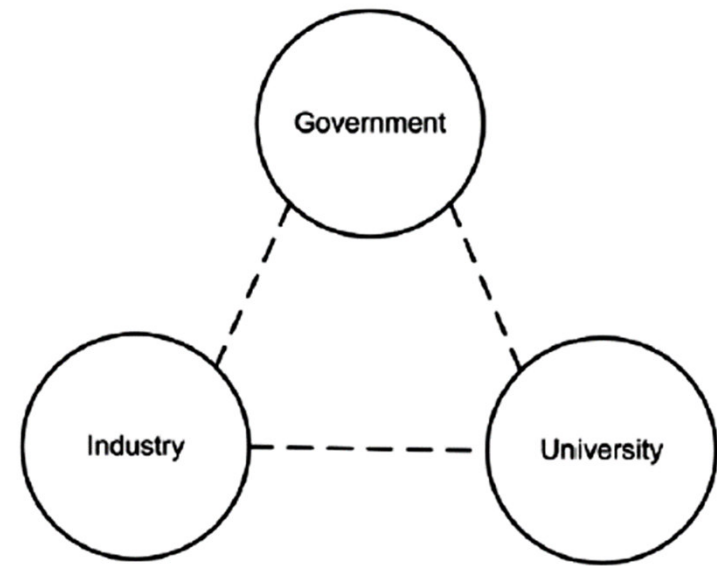


Figure 2. *Laissez-faire* model.

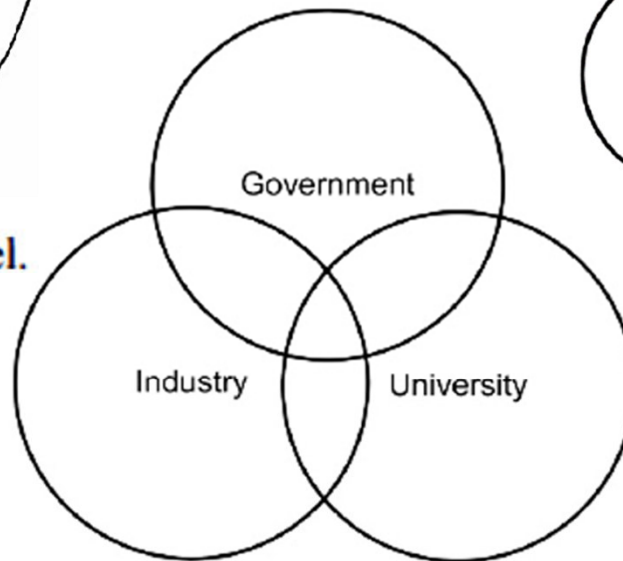


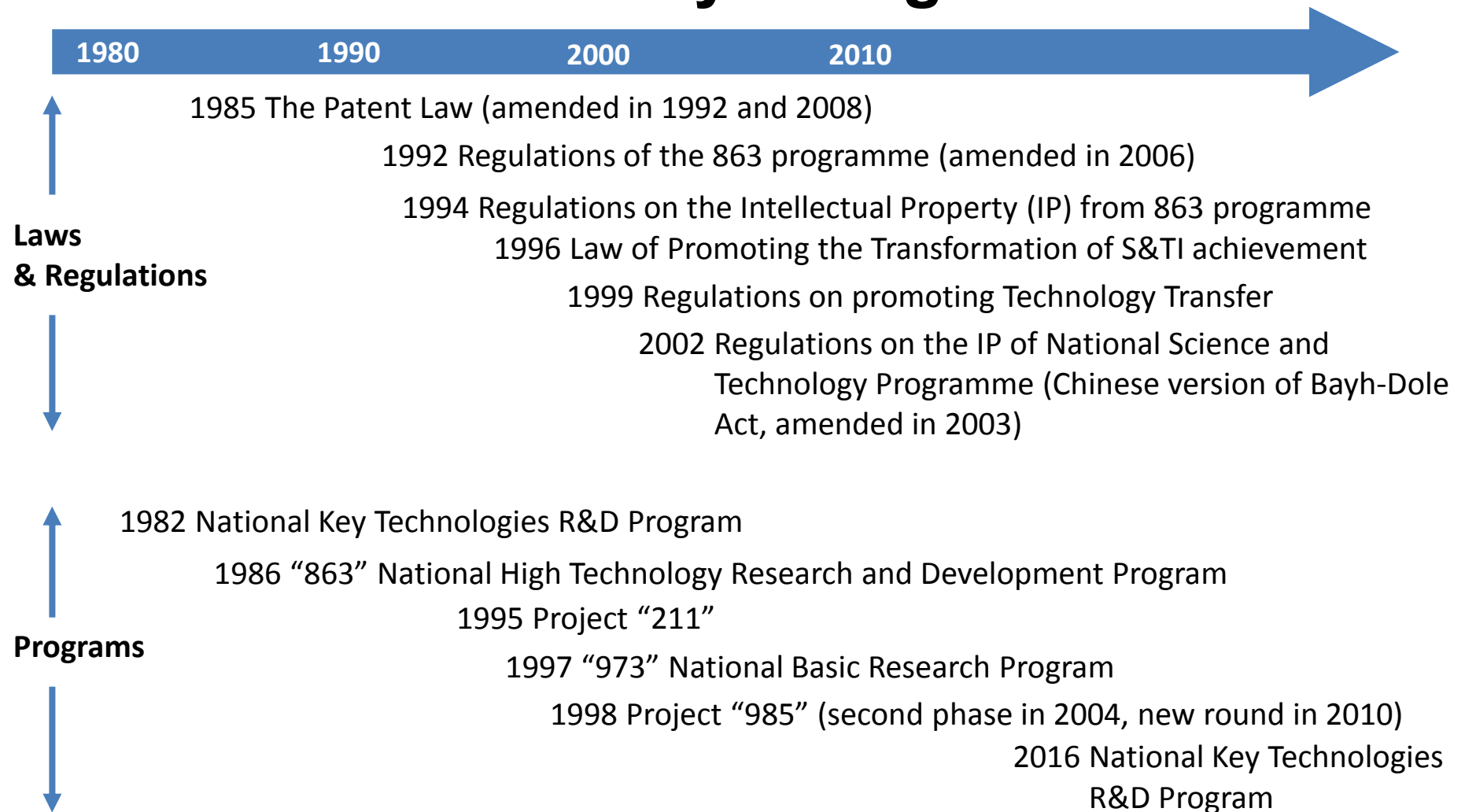
Figure 3. Overlapping model.

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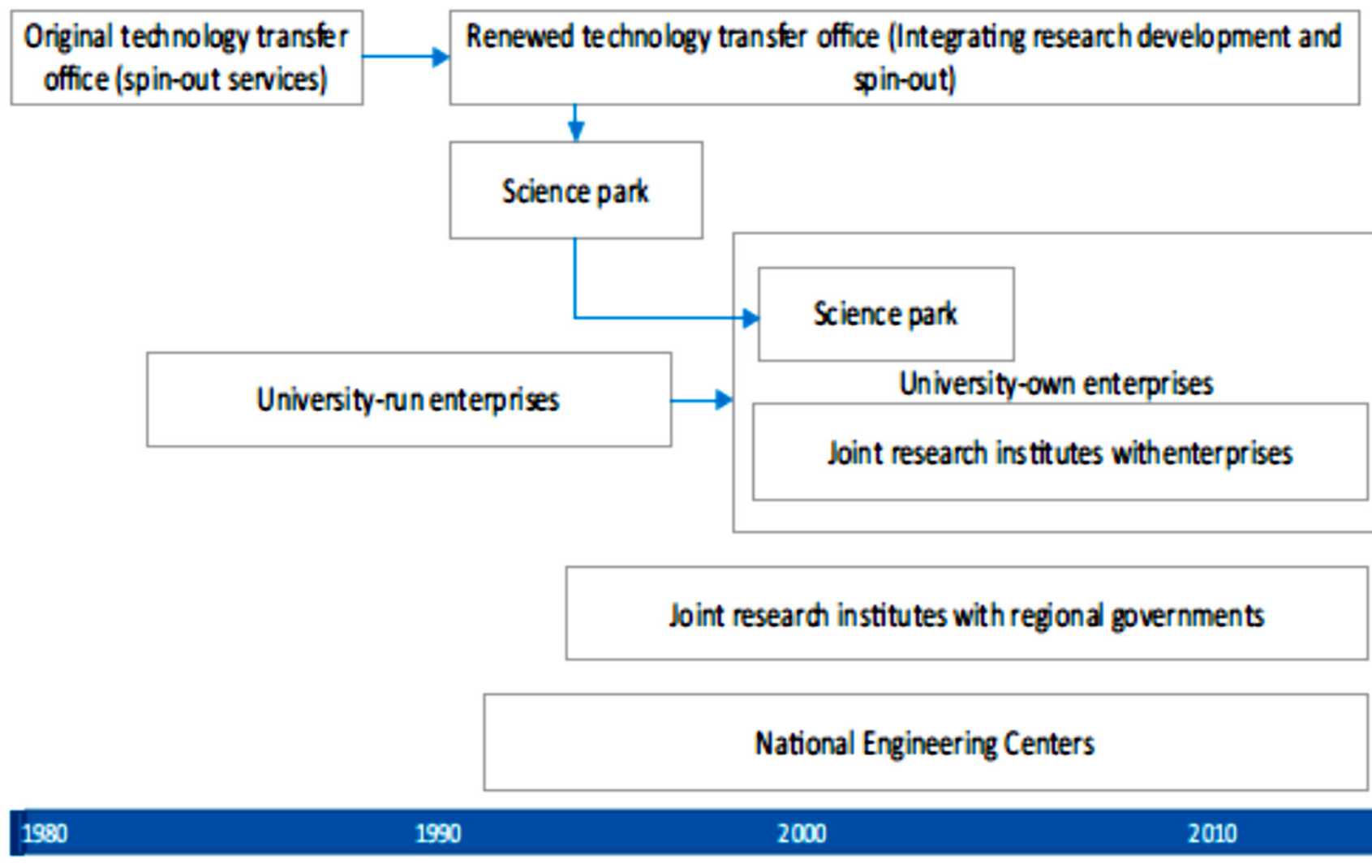


Policy support for the University-industry linkage



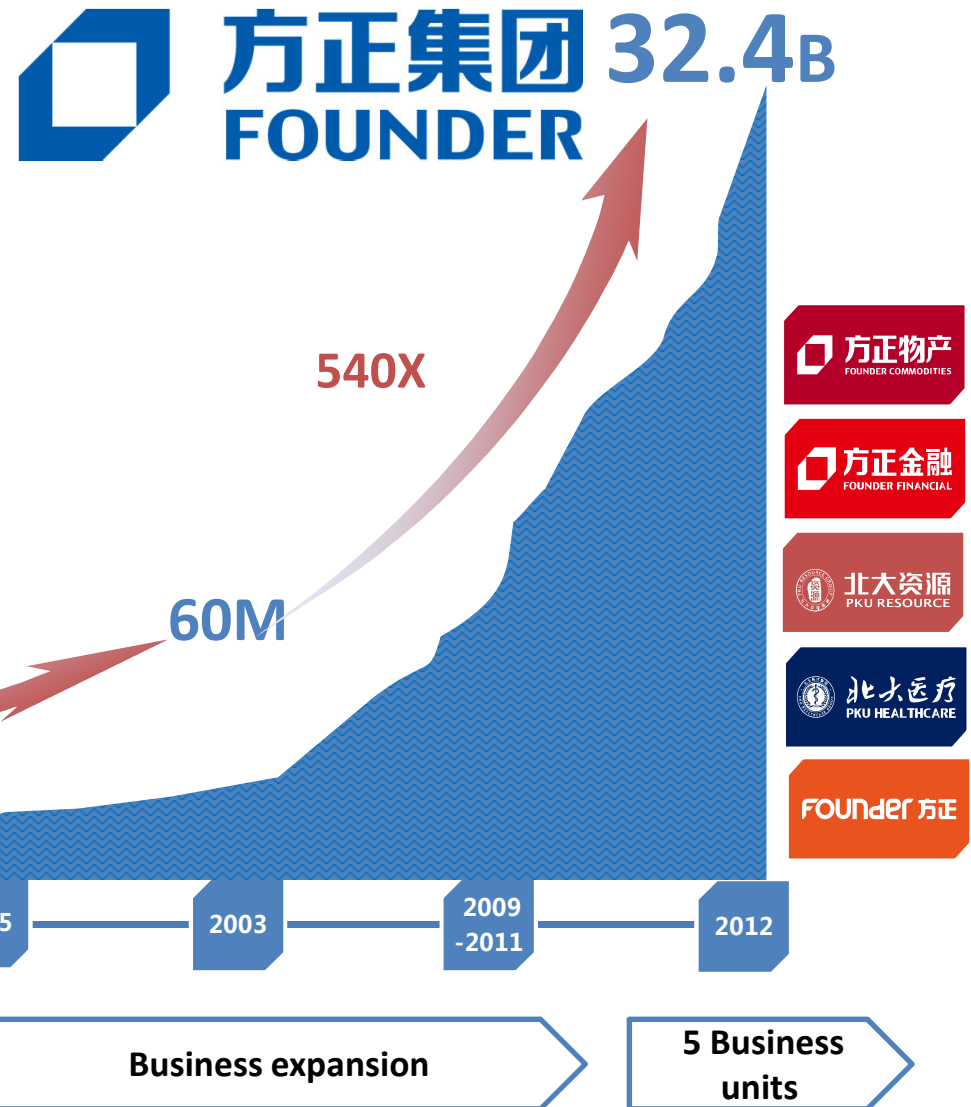
Programs belong to *National Systems of Innovation in China*

UIL Case Study I: Tsinghua University (Cai et al, 2015)



UIL Case Study II PKU

- Based on the technology of digital type-setting for Asia font invented by a PKU professor;
- Grow into a 5 major business units - IT, health, real estate, financial services, commodity trade;
- 32.4 billion asset after 26 years;
- 40,000 employees; **150X**



UIL Case Study III: Tongji Model

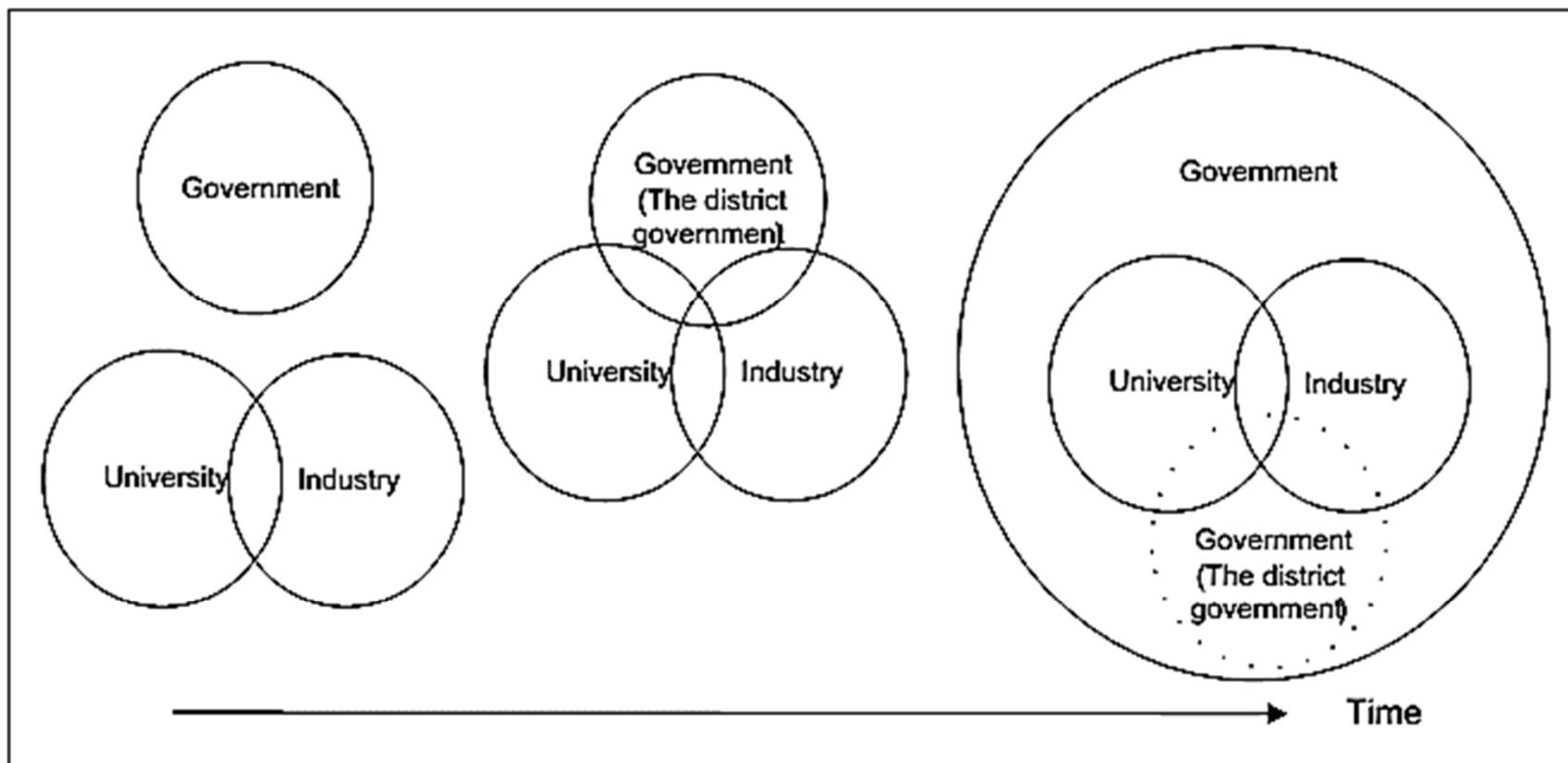


Figure 4. Delayed government-led model.

Source: Cai and Liu (2015).



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UIL Case Study IV: Shenzhen Case (Chen&Kenney, 2007)

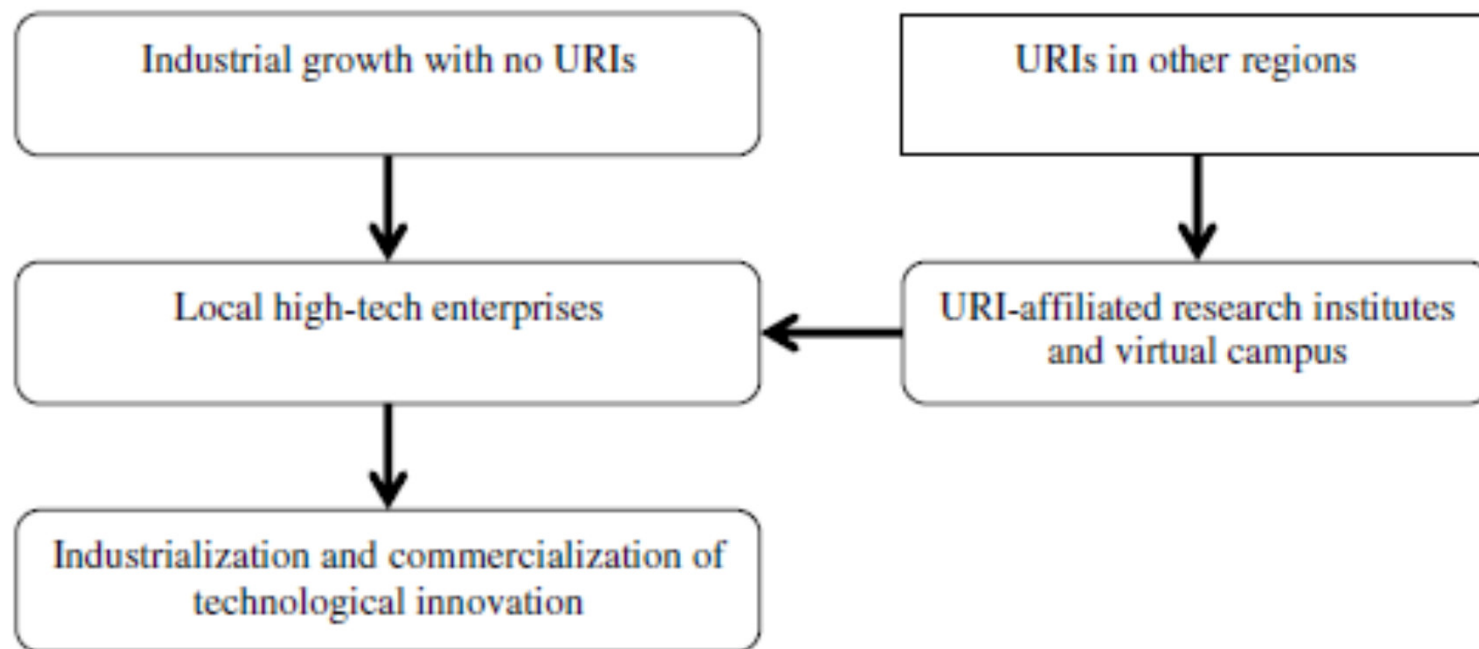
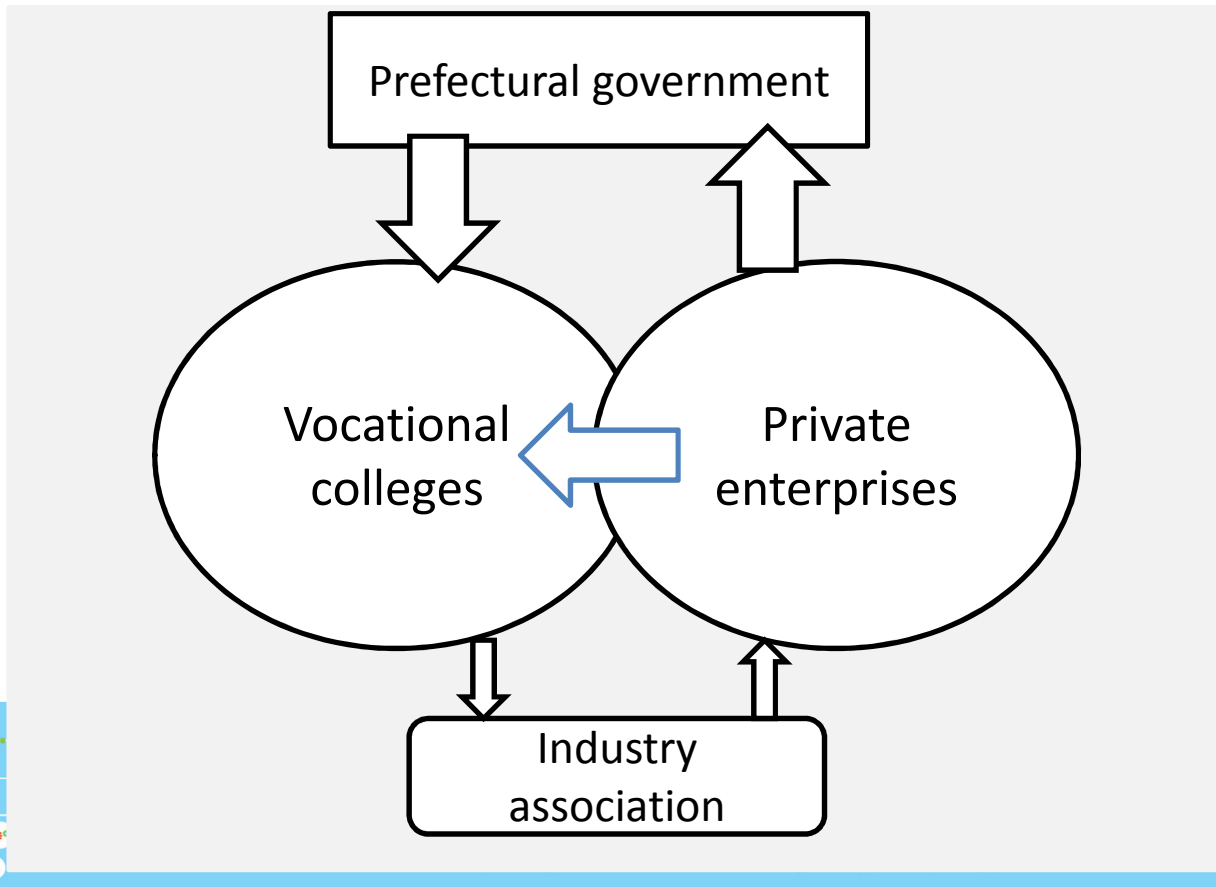


Figure 4. *URI-industry model in Shenzhen.*



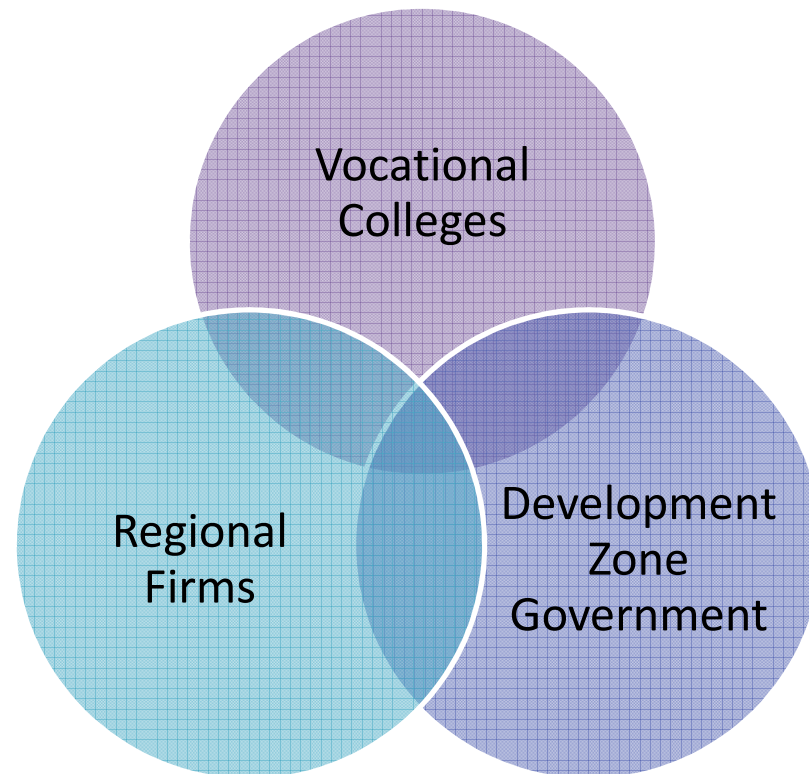
Empirical Evidence from Vocational College Transformation: how to transform?

- Regional variation in organization transformation pattern
- Ningbo, Wenzhou, Hangzhou Model (joint-programs, majors, and departments or schools)



Empirical Evidence from Vocational College Transformation: how to transform?

- Regional variation in organization transformation pattern
- Zhongshan Torch Model (Mixed ownership model)



Ownership mix
model



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Lessons Learned

- **Different types of Higher Education Institutions (elite vs. non-elite) serve different roles in UIL: technology transfer vs. TVET training**
- **Local institutional contexts shape the nature and outcomes of UIL: strategies should be context-specific**
- **Align economic incentives with efforts is key to the success in UIL**
- **Question: How to divest from spin-offs without jeopardizing long-term returns? How to strike the balance between roles of owners and managers?**



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Thank You

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