

China's Innovation System Transformation

Policy Dilemmas and Variety in Developmental
Trajectories from a perspective of SMEs

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MiSET

Research Background

THE CHINESE DREAM:

- **An innovation-oriented economy by 2020.**
- **A world leader in Science & Technology by 2050.**

(MLP, 2006)



- \$0.5 billion investment on R&D per day
- 79 innovation policies from 2006 to 2009

REALITY OF CHINA'S INNOVATION SYSTEM

- **A fast follower**, rather than a leader
- **An absorptive state**, adept at attracting and profiting from global knowledge and networks.

(NESTA, 2013)



Distinct context in China's transitional process

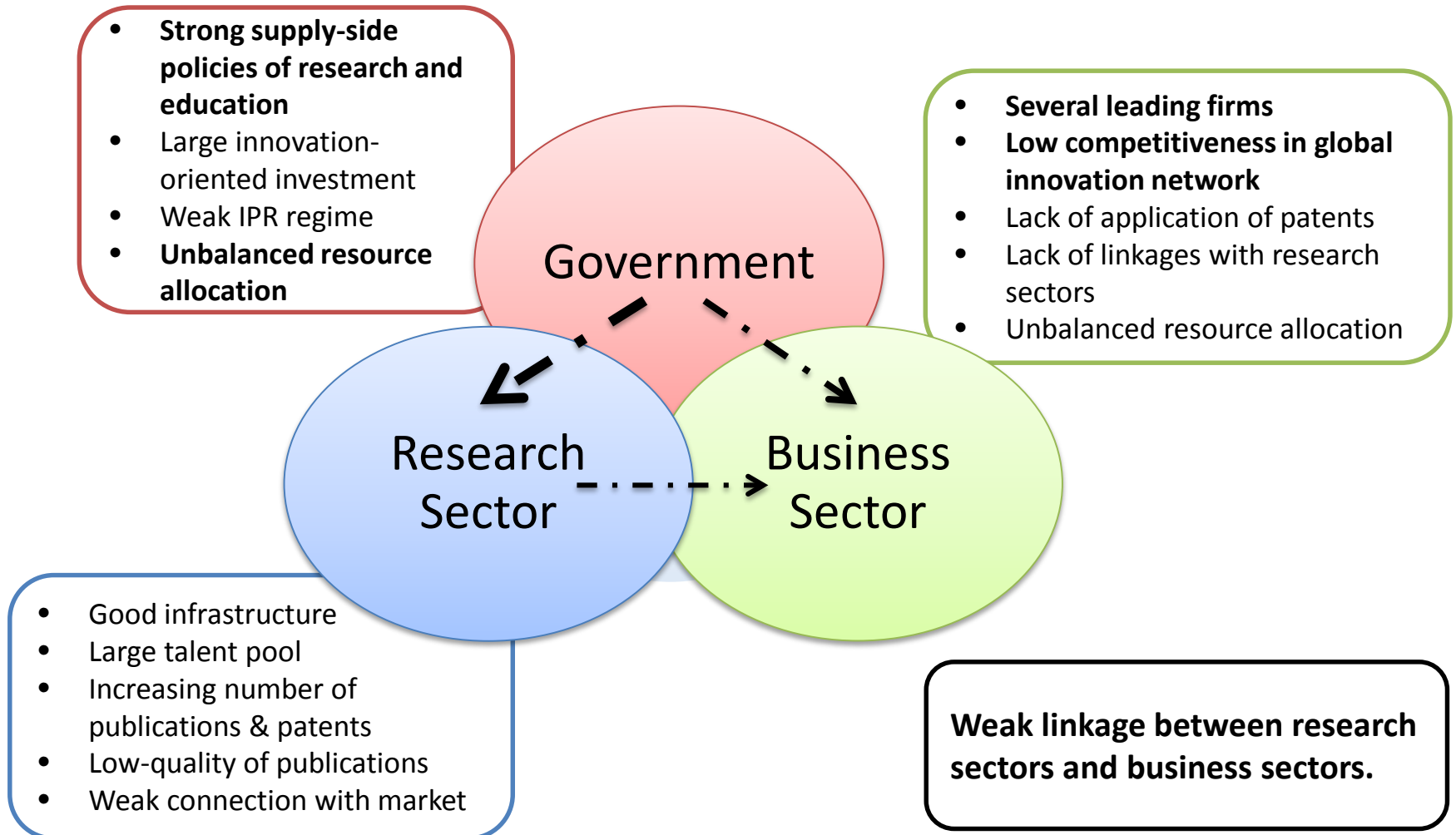
- "Government-led" → "Market-driven"
- "Global Factory" → "Innovative Economy"

Policy Dilemmas in the transitional process

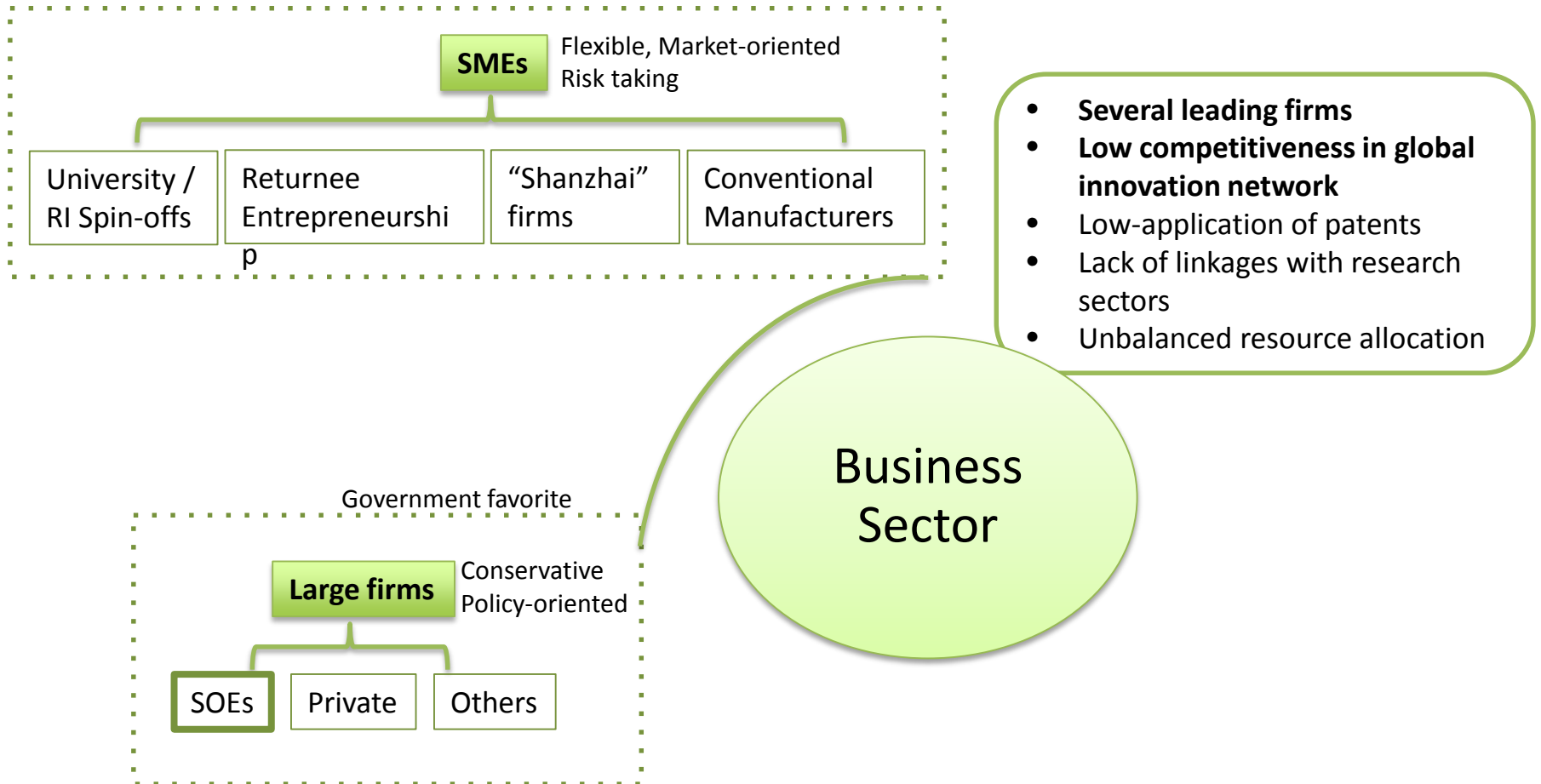
- Reconcile the management of SOEs and increasing demand of privatization and entrepreneurship
- Balance of resource allocation and political support
 - Too much focus on Research Sectors and SOEs
 - Private firms, especially SMEs are relatively overlooked.

Research Context (I)

CURRENT CONDITIONS OF CHINA'S INNOVATION SYSTEM



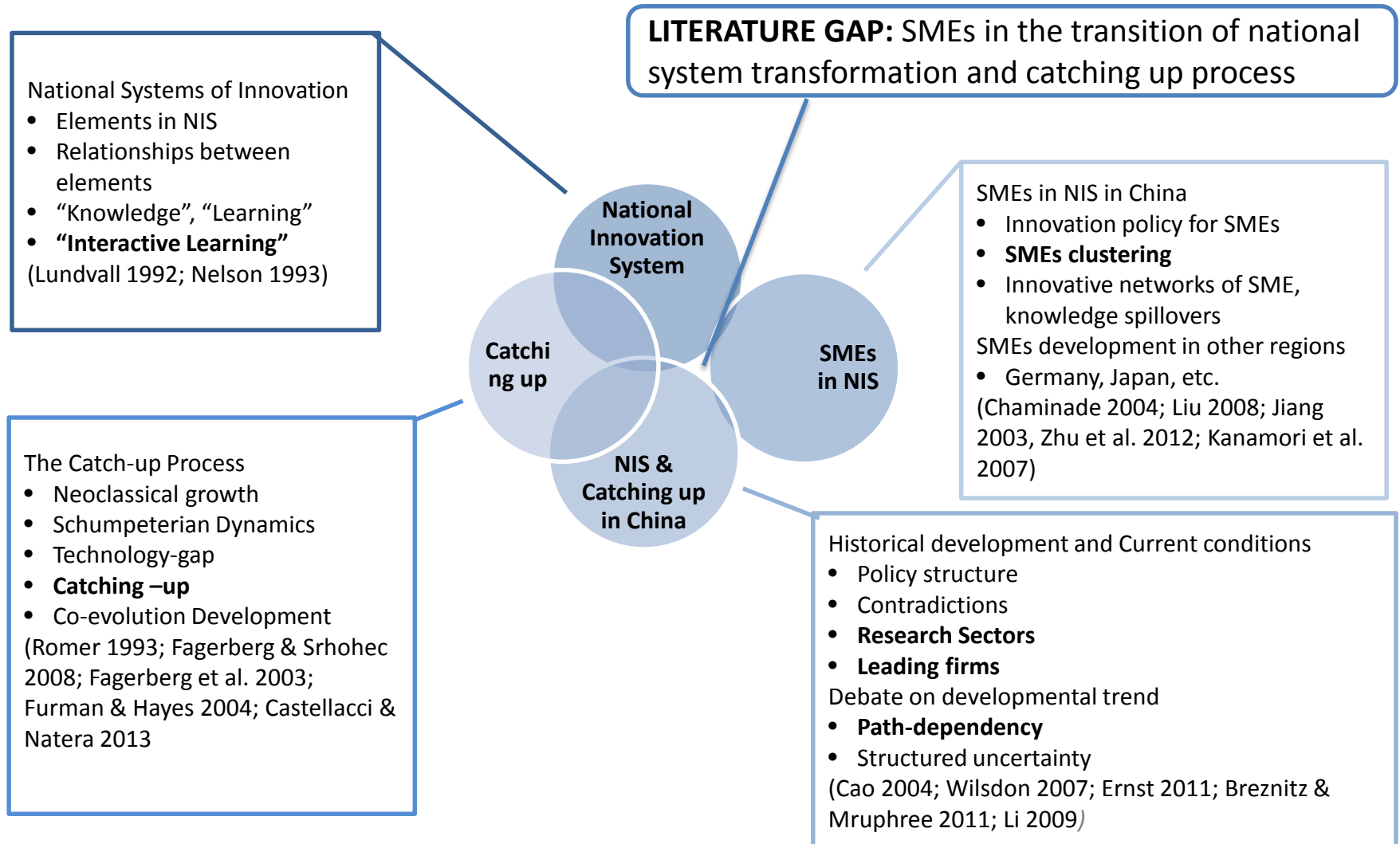
Research Context (II)



Research Questions

- What is the influence of small and medium-sized enterprises (SMEs) in driving China's transition towards a more innovative economy?

Research Gap



Research Framework (I)

China's innovation system transformation:
Integration of government and market led, indigenous and absorptive innovation

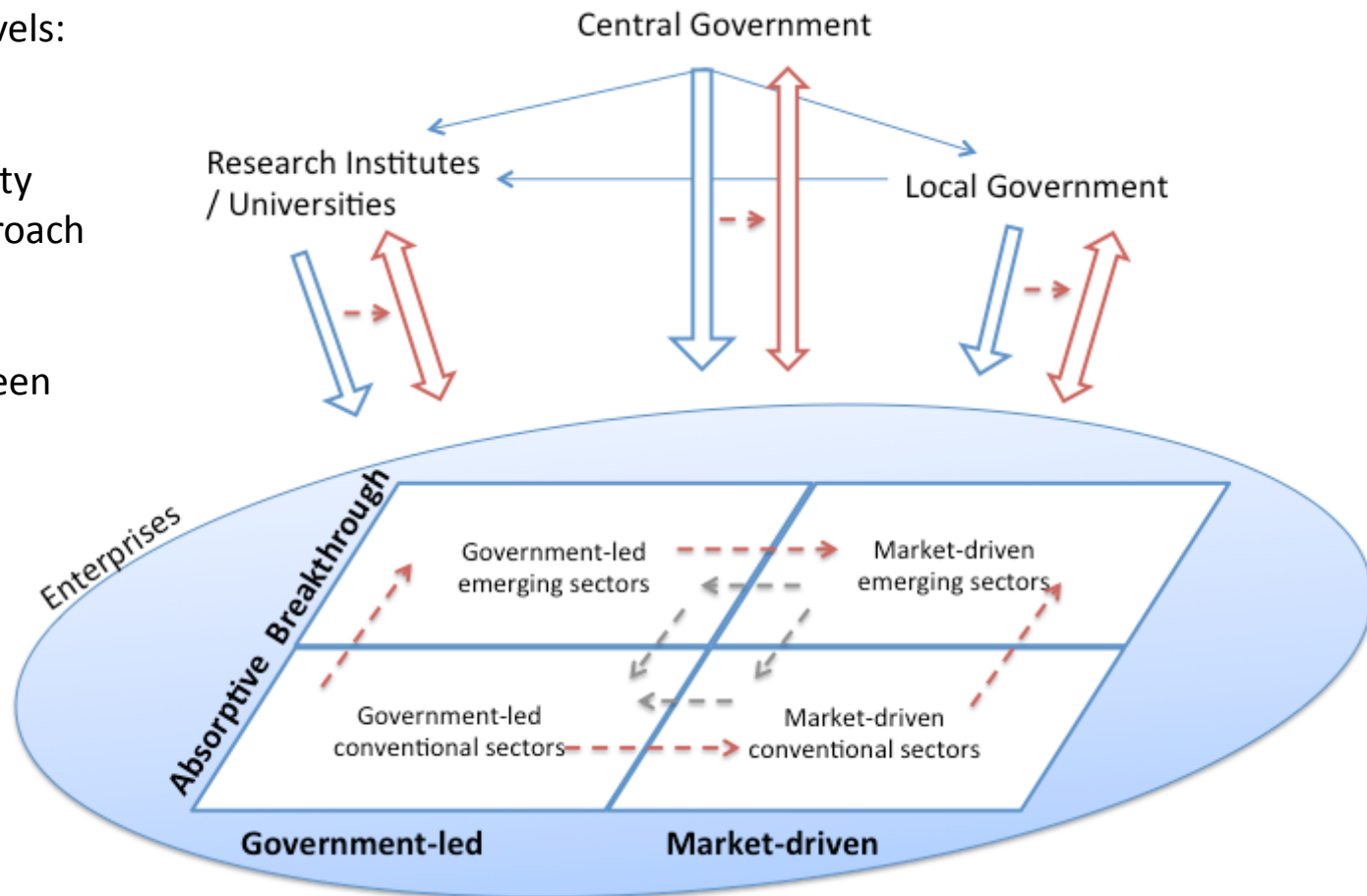
Transitions at two levels:

Enterprise level

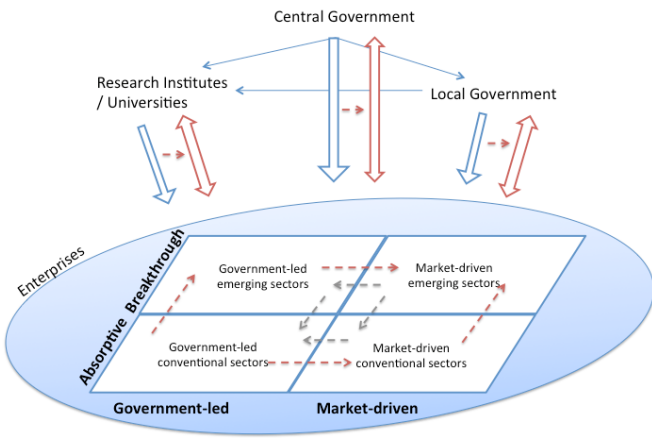
- Development of innovative capacity
- Governance Approach

National Innovation System level

- Interaction between elements in NIS



Research Framework (II)



Main Typologies of Enterprises in Different Innovation Categories and Their Characteristics

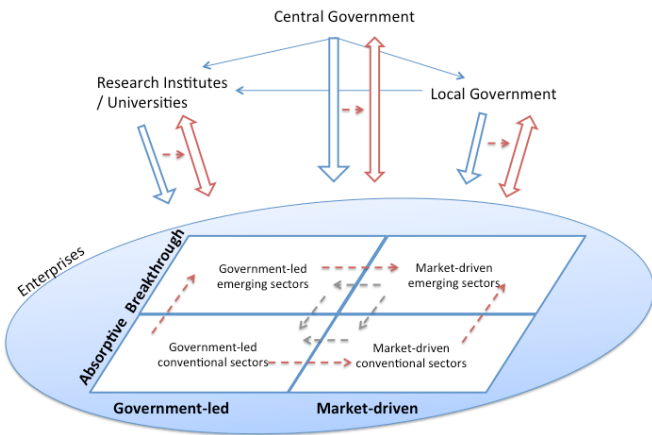
	Government-led High-tech Sectors	Market-driven High-tech Sectors
Breakthrough	Government support	Government support
	Level of innovation	Level of innovation
	Close link to Research Sectors	Close link to Research Sectors
	Emphasis on Market	Emphasis on Market
	International Cooperation	International Cooperation
	Transitional Capability	Transitional Capability
Absorptive	Government-led Conventional Sectors	Market-driven Conventional Sectors
	Government support	Government support
	Level of innovation	Level of innovation
	Close link to Research Sectors	Close link to Research Sectors
	Emphasis on Market	Emphasis on Market
	International Cooperation	International Cooperation
	Transitional Capability	Transitional Capability
	Government-led	Market-driven

URIs (Government-led High-tech Sectors)

Returnee Entrepreneurship (Market-driven High-tech Sectors)

Conventional Manufacturers (Government-led Conventional Sectors)

“Shanzhai” firms (Market-driven Conventional Sectors)



Propositions

- P1: SMEs in government-led high-tech sectors will boost knowledge diffusion and advanced technology implication by strengthening the linkage between research sectors and business sectors.
- P2: SMEs in market-driven high-tech sectors will be leading innovators in niche market and facilitate industrial innovative development by active connection with other elements of the innovation network.
- P3: SMEs in market-driven conventional sectors will gear up the speed of innovative development in niche market by efficient commercialization and growing innovative capacity beyond imitation.
- P4: SMEs in government-led conventional sectors will enhance the transform into high-tech sectors while the majority focus on advanced manufacturing.

Research Design & Methodology

- **Research Targets:**

- Four typologies of SMEs in a particular industry, such as green energy industry, automobile industry, which contains all the four typologies of SMEs (URIs, Returnee Entrepreneurs, “Shanzhai” firms, Conventional firms)

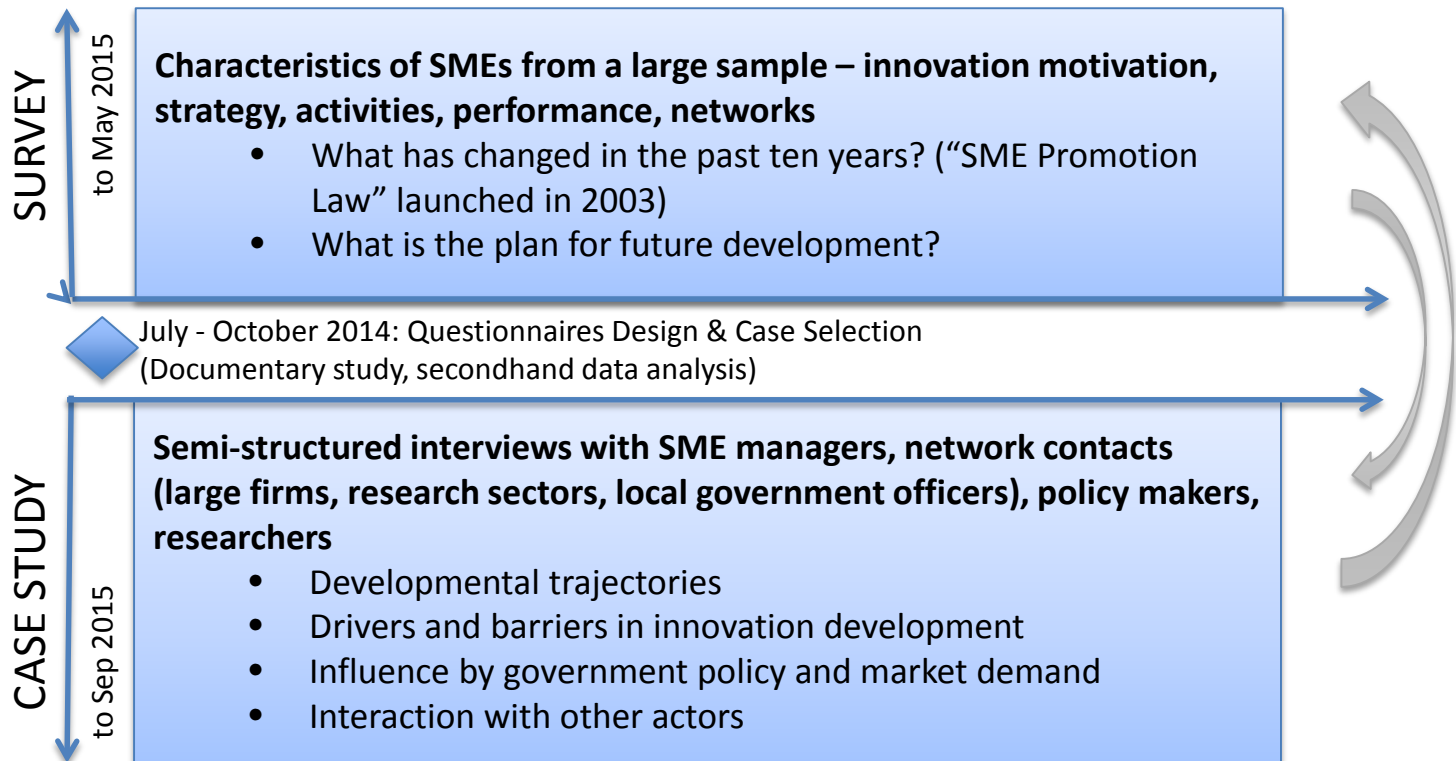
- **Key questions:**

- Firm-level innovation development in four typologies of SMEs
- Relationships with each other, with large firms, research sectors, government, through supply chain / value chain

Research Design & Methodology

- **Mix methods:**

- Case study
- *Survey*



Potential Difficulties & Challenges

- Time balance between Case Study and *Survey*, and various cases.
- Case Selection (To select SMEs which could represent the typical and major types)
 - STRATEGY: Research on literature, government reports, secondhand data source such as import & export data, expert interview, etc.
- Access to participants for survey
 - STRATEGY: Online survey, searching for cooperation like government projects, third-part companies, etc.

Q & A

Thank you for your attention!

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