

---

## Preface

---

### Jarunee Wonglimpiyarat

College of Innovation,  
Thammasat University,  
Anekprasong 3 Building,  
Prachan Rd., Bangkok 10200, Thailand  
Fax: (662) 623-5060  
E-mail: jaruneew@tu.ac.th

and

Boston University,  
808 Commonwealth Avenue,  
Boston, Massachusetts 02215, USA  
Fax: 617 353 6840  
E-mail: jaruneew@bu.edu

### Lena Lee

NUS Business School,  
Mochtar Riady Building,  
Level 4, 15 Kent Ridge Drive 119245, Singapore  
Fax: 65-65162033 E-mail: lenalee@nus.edu.sg

**Biographical notes:** Jarunee Wonglimpiyarat, PhD, CPA, CIA, CFE, CGAP, CFSA, CISA, CISM is a member in the College of Innovation, Thammasat University, Thailand and Department of Administrative Sciences, Boston University, USA. She holds a PhD in Technology Management from Manchester Business School, UK and Postdoctoral Fellowships at Boston University and Harvard University, USA. She has working experiences at PricewaterhouseCoopers, Standard Chartered Bank, Citibank N.A., Sussex Innovation Centre, Boston Technology Commercialisation Institute and US Securities and Exchange Commission. She has won many awards including Elsevier Scopus Young Scientist Award, the award designed by Elsevier, the world's leading research publisher of scientific information.

Lena Lee is Head of Student Development Unit at the MBA office, National University of Singapore Business School. Formerly, she was Research Fellow at the NUS Entrepreneurship Centre. She obtained her PhD in Business and Management from the University of South Australia. Her research interests revolve around issues on entrepreneurship, innovation management and government S&T policy. She has published in international refereed journals: *Journal of Business Venturing*, *Small Business Economics*, *Journal of Enterprising Culture* and *Frontiers of Entrepreneurship Research* and presented papers at reputable international conferences: *Academy of Management*, *Academy of International Business*, and *Babson Kauffman Entrepreneurship Research Conference*.

Science parks and innovation centres are currently seen as development models for the growth of high-tech start-ups based on partnerships between universities, research institutions and industries. Many governments have placed increasing emphasis on programme initiatives to support small high-tech firms. However, science parks and innovation centres in many countries are not quite as successful as expected. Whilst the importance of science parks and innovation centres for economic development is widely acknowledged, value creation and technology commercialisation success is seen as a vital part of an effective incubator redesign. Thus, the reformation of science parks and innovation centres is critical in nurturing high growth start-up enterprises in transition conditions for entrepreneurship.

This special issue of the *International Journal of Technoentrepreneurship* examines 'Challenges of Triple-Helix nexus in managing science parks and the role of innovation centres in fostering high-tech start-ups'. This special issue brings together academics, practitioners, and researchers, and aims to deliver a reference edition for all those interested in the governance structure of the Triple Helix in redesigning an effective innovation incubation. The seven refereed papers included have many interesting dimensions on the Triple-Helix nexus aspects based in a variety of countries and continents.

The first paper in this special issue is, 'UNIFEI, Brazil: a case study of the role of the university in local development', by Genecy Moraes Coelho Junior, Branca Terra, Elaine Cavalcate Peixoto Borin and Mariza Almeida. The paper analyses the role of the Universidade Federal de Itajubá (UNIFEI), Brazil, in managing three technological incubators (Incit, Cegeit and Intecoop) based on the Triple Helix model. The paper discusses the role of university, industry and government of the Triple Helix model within the consensus space established to fulfil the project for the development of the municipality. UNIFEI's experience can be utilised by other governments and universities seeking to implement economic development policies based on science, technology and the integration of the university, business and governmental spheres.

The second paper is 'Research institutes and R&D subsidies: Taiwan's national innovation system and policy experiences', by Meng-chun Liu and Fang-I. Wen. This work analyses the case of Taiwan's national innovation system by focusing on the role played by government-sponsored research institutes in implementing industrial technology policies. The study explores the functions of research alliances and granted R&D projects of Government-Sponsored Research Institutes (GSRI) in helping Small and Medium Enterprises (SMEs) in the process of technology development. From the perspective of the Triple-Helix concept on the national innovation system, the results show that the two research institutes play an important role in the national innovation system, in assisting the government to achieve policy objectives.

The third paper in this special issue is 'Science parks and Triple-Helix innovation in UK and Japan', by Yumiko Myoken. This work explores the features, functions and mechanisms of the Triple-Helix linkages with a case study of science parks in Cambridge, UK and Tsukuba, Japan. The results demonstrate the roles of various intermediary organisations such as the innovation centre and entrepreneur networks in providing specialised knowledge and business support to new technology-based firms for building robust regional clusters.

The fourth paper is 'The Triple-Helix implementation in the Thai Venture Capital industry', by Tippawan Pinvanichkul and Jarunee Wonglimpiyarat. This work explores the Thai Venture Capital (VC) industry based on the Triple-Helix model. The study also

explains the development, structure as well as factors promoting and inhibiting the development of VC in Thailand. The VC industry of Thailand is developed through three phases. The shift from Phase I to Phase II is gradual whereas the rapid growth in Phase III is marked by the establishments of government VC funds and private funds as well as university VC funds. The results reveal the role of government interaction with universities and industries in contributing to the growth of the Thai venture capital market.

The fifth paper in this special issue is ‘The role of Italian incubators and Science Parks in the Triple-Helix era. The hybrid model developed in Lombardy’, by Cinzia Coalpinto. This work examines the case of Lombardy, the region in which hybrid organisations are created to facilitate exchanges of knowledge and value creation. The results show that cross-institutional alliances, in which several universities and non-academic research facilities come together, help in the process of exploiting research results and the take-up of results to foster economic growth.

The sixth paper is ‘From Triple-Helix model to eco-system building model’, by Akio Nishizawa. The paper examines the building process of the Triple-Helix model for application to the Japan region as the meso-level organisation for innovation creation and new venture formation. The Japanese government has tried to recover its industrial competitiveness by introducing “the Cloning Silicon Valley Policy” to rejuvenate the Japanese economy. The findings have exposed the problems of cultural differences that cause conflicts between existing institutions and new business ventures. Furthermore, the Japanese regions cannot build their own eco-system as a meso-organisation to fill the gap between macro policy at the national government and micro-entrepreneurial activities in the regions.

The last paper in this special issue is, ‘The characteristics of the Triple–Helix nexus in Finnish business incubations’, by Rauno Rusko. This work discusses a Finnish case study based on the Triple-Helix model. The case investigation is carried out in two phases: the general level (the practices of the Finnish business incubations) and the specific level (characteristics of the 40 most important Finnish business incubations). The study has shown that all three elements of the Triple–Helix nexus are present and functioning well. The public sector plays an important role in Finnish business incubations.

This special issue covers a wide range of research studies that focus on how to turn science parks and innovation centres into a generator of new enterprises; the challenges of the new innovation system to accelerate innovation commercialisation according to the Triple-Helix model, and the role of government incubator support initiatives in managing R&D activities, encouraging technology transfer and commercialisation. We are grateful to Prof. François Thérin, Liz Harris, Prof. Calestous Juma, Prof. Henry Etzkowitz, Prof. Barry Unger, Prof. Kip Becker, Prof. Jung Wan Lee and to Inderscience Publishers for giving us the opportunity to organise this special issue in the *International Journal of Technoentrepreneurship*. We would like to thank the authors and referees for their contributions to this special issue.