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Contents

Introduction to the Special Issue on the Globalization of the U.S. Small Business Innovation Research (SBIR) Program **1**
Albert N. Link

Public Support of SMEs in the Republic of Turkey **9**
Nilay Unsal

The Small Business Innovation Research Program in Australia **29**
David B. Audretsch and Allan O'Connor

Drivers of Entrepreneurial Performance: An Assessment of the PIPE Program in Brazil **40**
Gustavo Hermínio Salati Marcondes de Moraes, Bruno Brandão Fischer, Sergio Salles-Filho and Nicholas Vonortas

Korea Small Business Innovation Research (KOSBIR) **64**
Irineu de Souza Lima Júnior, Soo J. Sohn and Nicholas S. Vonortas

Japan's SBIR Scheme **79**
Masatoshi Kato and Alex Coad

Recent Development of Small Business Innovation Research (SBIR) Programs in Taiwan **96**
Jianqiang Chen, Pei-Fang Hsieh and Po-Hsuan Hsu

The UK Small Business Research Initiative **119**
James A. Cunningham

SBIR in The Netherlands **155**
Martijn van Hasselt

Stimulating R&D and Commercialization Activity in New Zealand: An Overview and Case Analysis of Callaghan Innovation's Grants and Technology Incubator Programme **176**
Conor O'Kane, Urs Daellenbach, Sally Davenport and Simon Wakeman

Introduction to the Special Issue on the Globalization of the U.S. Small Business Innovation Research (SBIR) Program

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ABSTRACT

This Introduction briefly summarizes the legislative history of the SBIR program in the United States and then offers a country-by-country overview of international programs aimed at similarly stimulating the innovative behavior of small firms.

Albert N. Link (2024), "Introduction to the Special Issue on the Globalization of the U.S. Small Business Innovation Research (SBIR) Program", Annals of Science and Technology Policy: Vol. 8, No. 1–2, pp 1–8. DOI: 10.1561/110.00000028-1.

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Public Support of SMEs in the Republic of Turkey

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ABSTRACT

The Republic of Turkey adopted a policy in the early 1980s to support private sector R&D. However, the country's legislative process for supporting R&D in small firms had not started another decade. The government's realization of the importance of small businesses in the national and international markets led to establish the Small and Medium-Sized Industry Development Organization (KOSGEB) in 1990 (Public Law 3624). Aspects of KOSGEB mirror aspects of the U.S. SBIR program.

Nilay Unsal (2024), "Public Support of SMEs in the Republic of Turkey", Annals of Science and Technology Policy: Vol. 8, No. 1–2, pp 9–28. DOI: 10.1561/110.00000028-2.

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The Small Business Innovation Research Program in Australia

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ABSTRACT

To enhance both innovation in national defence and the competitiveness and innovative performance of small and medium-sized enterprises (SMEs), the Small Business Innovation Research for Defence (SBIRD) was established by the Australian government in 1996. The goal of the SBIRD was to enhance specific challenges prioritized by the Government for Defence, and to enhance emerging technologies and in particular disruptive technologies. The SBIRD consists of two phases, similar to the U.S. SBIR program. Sufficient time has not elapsed for systematic evaluations and analyses of the impact of the program.

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Drivers of Entrepreneurial Performance: An Assessment of the PIPE Program in Brazil

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ABSTRACT

Knowledge-intensive entrepreneurial firms (KIE) represent a core part of this specific cohort of SMEs. Scientific capabilities need to be translated into market skills that allow creating R&D skills oriented towards innovation. This can be achieved through strategic decisions and deployments that facilitate the creation, sharing, and transfer of the company's knowledge base. Plus, strategic commitment to R&D can play multiple roles throughout the initial stages of KIE ventures: it enables the establishment of alliances, exploitation of external knowledge, and, as expected, new product development. The success of KIE ventures in Brazil is traceable to the PIPE Program (the acronym stands for Technological Innovation in Small Business), an initiative from the Research Foundation of the State of São Paulo, Brazil. This initiative dates back to 1997 and it follows a

Gustavo Hermínio Salati Marcondes de Moraes, Bruno Brandão Fischer, Sergio Salles-Filho and Nicholas Vonortas (2024), "Drivers of Entrepreneurial Performance: An Assessment of the PIPE Program in Brazil", Annals of Science and Technology Policy: Vol. 8, No. 1–2, pp 40–63. DOI: 10.1561/110.00000028-4.

similar structure to that of the Small Business Innovation Research (SBIR) program in the US.

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Korea Small Business Innovation Research (KOSBIR)

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ABSTRACT

The foreign exchange crisis in 1997 also led the Korean government to pursue economic revitalization, and part of the strategy was to improve the global competitiveness of local SMEs. Korea was the first East Asian country to establish, in 1998, a research and development (R&D) support program focused on small and medium-sized enterprises (SMEs) sculpted on the Small Business Innovation Research (SBIR) program in the United States. The Korea Small Business Innovation Research (KOSBIR) was created in the context of an internationalization policy and open economy movement in the 1990s, followed by the Korean membership in the OECD. The KOSBIR program is reviewed in this monograph.

Irineu de Souza Lima Júnior, Soo J. Sohn and Nicholas S. Vonortas (2024), "Korea Small Business Innovation Research (KOSBIR)", Annals of Science and Technology Policy: Vol. 8, No. 1–2, pp 64–78. DOI: 10.1561/110.00000028-5.

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Japan's SBIR Scheme

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ABSTRACT

Following the SBIR program in the U.S. in 1982, a similar program has been enacted in Japan in 1999, officially known as the Law for Facilitating Creation of New Business, but often referred to as the Japanese SBIR programme. Japan's SBIR scheme aims to increase opportunities for SMEs with technology development capability, to receive support for their R&D, and to support the commercialization of outcomes from such activities, based on the Small and Medium-sized Enterprises Business Enhancement Act. This monograph highlights a peculiar characteristic of the Japanese SBIR scheme compared to the U.S. program, namely Japan's SBIR recipients are relatively old.

Masatoshi Kato and Alex Coad (2024), "Japan's SBIR Scheme", Annals of Science and Technology Policy: Vol. 8, No. 1–2, pp 79–95. DOI: 10.1561/110.00000028-6.

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Recent Development of Small Business Innovation Research (SBIR) Programs in Taiwan

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ABSTRACT

The Standards for Identifying Small- and Medium-sized Enterprises published by the Ministry of Economic Affairs (MOEA) in Taiwan launched Small Business Innovation Research (SBIR) programs in February 1999. The programs are intended to subsidize domestic SMEs that develop new technologies, products, and services to, as well as expected to fill SMEs' funding gap and reduce their uncertainty with respect to innovation. This monograph describes the evolution of these programs.

Jianqiang Chen, Pei-Fang Hsieh and Po-Hsuan Hsu (2024), "Recent Development of Small Business Innovation Research (SBIR) Programs in Taiwan", Annals of Science and Technology Policy: Vol. 8, No. 1–2, pp 96–118. DOI: 10.1561/110.00000028-7.

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The UK Small Business Research Initiative

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ABSTRACT

The UK has adopted aspects of the US SBIR programme which was established in 1982. The UK version of the programme, established in 2001 was titled the Small Business Research Initiative. The programme was later labelled a failure in that it did not reflect the anticipated performance in terms of participation by government departments or spending contracts of the similar programme US SBIR. At the end of 2007 improvements were made and a newly reformed version of the initiative was created. By 2008 a new UK SBRI programme was launched that mirrored more of the US SBIR programme. Responsibility to coordinate and drive the UK SBRI programme was given to Innovate UK (previously known as the Technology Strategy Board) and the then Department of Trade and Industry. This monograph describes the evolution of the UK program.

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SBIR in The Netherlands

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ABSTRACT

This monograph provides an overview of the Small Business Innovation Research (SBIR) program as currently implemented in The Netherlands and reviews the available empirical evidence about its impact. The program was partially modeled after the US SBIR program and was first piloted in 2004. There are currently three variants of the program, executed by distinct government agencies. SBIR does not provide subsidies or grants, instead it is a pre-commercial procurement program, under which a government agency enters a contractual agreement with a private business to develop innovations and prepare them for commercialization. Like US SBIR, the program is competitive and takes a phased approach to funding. Two of the three variants specifically aim to stimulate the development of innovative solutions to large societal challenges. All three variants further aim to strengthen the innovative capacity of small and medium enterprises. The few program evaluations conducted to date provide limited empirical evidence about the realized benefits of SBIR in The Netherlands. It appears that the program remains somewhat underutilized, but survey evidence obtained from program participants suggests that SBIR stimulated the development of highly innovative products and services, which in turn led to further research and

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development investments and spillover effects to other firms and sectors in the economy.

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Stimulating R&D and Commercialization Activity in New Zealand: An Overview and Case Analysis of Callaghan Innovation's Grants and Technology Incubator Programme

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ABSTRACT

Similar to the Small Business Innovation Research (SBIR) programme in the United States (US), New Zealand (NZ), like many other countries internationally, has designed policy settings that could increase R&D and commercialization activity. In this monograph, we discuss the establishment of Callaghan Innovation in NZ and provide an overview of some of the R&D grant programmes it has put in place over the last decade that most closely align to the goals of SBIR. The primary focus of our monograph is a detailed case overview on a specific Callaghan Innovation-administered initiative, namely the Technology Incubator programme. Specialized

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technology incubators were formed to identify and evaluate complex intellectual property (IP) from publicly funded universities or Crown Research Institutes (CRIs) and private R&D with the objective of supporting or forming (through investment and incubation services) deep-tech start-ups with global potential. We provide a detailed and critical overview on the policy intent, roll-out and performance of this technology incubator programme. We report on the changes made to try to make the programme more effective and conclude by noting some key differences between it and SBIR.

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