

# Book Reviews

## New Technology~based Firms at the Turn of the Century

edited by Wim During, Ray Oakey and Michelle Kipling

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Published this very year by Pergamon, the book "New Technology~Based Firms at the Turn of the Century" (NTBF) is the seventh volume in the series of edited books about new technology~based firms. The series represents a clear case where the entire is bigger than the sum of its components; and many favorable reviews testify that by the manner in which it is constituted, the series represents the authoritative voice of NTBF developments.

This book is a collection of articles and essays and represents a continuation of an uninterrupted record of international research pertaining to high technology small firms (HTSFs) over a period of time that witnessed a rebirth of the interest in the growing problems of the small company.

Organised in **five Parts**, the book, after a short introduction (**Chapter 1**) in Part One, begins in Part Two (**Chapter 2**) with a "Conceptual Overview" on the broad theme of innovation in NTBFs at the end of the twentieth century, which furnishes an ideal context for the more specific offerings to follow.

"Innovation Management" is the main theme of **Part Three**, comprising seven Chapters in which inputs from external experts are generally found to be beneficial to HTSFs (**Chapter 3**). A study of academic and surrogate entrepreneurs (**Chapter 4**) concludes that the introduction of surrogate managers to the "spin off" process may aid academic entrepreneurship. Also, an investigation of "New Product Developments in Small Electronic Firms" in Ireland (**Chapter 5**) examines the factors that cause the success or failure of product developments. In this Part Three of the book, the principle of "Economic Co-evolution" among HTSFs (**Chapter 6**) and the impact of Innovative Firms on the regional developments (**Chapter 7**) are examined too. This Part concludes with insisting on the impact of

differing operating environments on the organisational culture of NTBFs (**Chapter 8**).

*Finance* – a key and recurrent area of interest for researchers concerned with the problems of NTBFs constitutes the subject of **Part Four**. In this Part it is examined the United Kingdom Tax System and its impact on NTBFs (**Chapter 9**) as well as the impact of public seed/venture capital and acquisitions on "The Financial Credibility of NTBFs" (**Chapter 10**). The impact of the UK Government's Smart Awards Scheme on NTBFs performance in United Kingdom is considered in **Chapter 11**. As a conclusion it is said that while funding is an important issue for all small companies, the problems faced by NTBFs during often prolonged periods of costly R&D associated with product development, provide particularly severe examples of funding difficulties in this type and scale of operation.

*Clustering and Location* is the theme of the last Part of the reviewed book. Part Five of the book examines the impact of NTBF location requirements on economic development, discovers that the location decisions of NTBF management are rarely systematic (**Chapter 12**) and explore convergence paths of NTBFs in Cambridge and Grenoble where similarities and differences in the evolutionary growth are considered between the two high technology oriented locations (**Chapter 13**). The **last Chapter**, of this last but not the least Part of the reviewed book, considers strategic networking in science parks and how the principle of high technology bazaar pertains in many instances (**Chapter 14**).

Somewhat true to its ambitious title "New Technology~Based Firms at the Turn of the Century" presents an extensive range of potentially useful information and perspective, but one must be discerning when parsing the useful from all the rest that is all the rage in management publications these days.

When I started read the reviewed book, I was thinking that I would find out more information about improving the management of technologies in the new product development activities in HTSFs. I meant, in special, more information about the strategic planning for new technology products, about the projects selection and how to link the projects to the strategy of the firm, or how do or should a new organization learn about technology. I did not find what I was looking for, but I understood that successful management of innovation in NTBFs is a critical issue, since innovation in these high technology areas of production is virtually continuous, while continuing to be highly risky. Thus efficiency in innovation management is critical to survival and growth.

In Part Four of the reviewed book I was looking for information about "New Product Portfolio Management" - a dynamic decision making process, whereby a business' list of active new products (and R&D projects) is constantly updated and revised; for new information about "Development Flexibility" - a function of incremental economic cost of modifying a product as a response to changes that can be external (e.g. a change in customer needs) or internal (e.g. discovering a better technical solution) to the development process; or for more information about "Target costing" - a technique to strategically manage the company's future profits that makes cost an input to the product development process, not an outcome of it. When I finished to read the reviewed book I understood that even in a book about High Technology business at the turn of the millennium, it is difficult to find all main issues.

However, all the mentioned drawbacks, I would say the reviewed book is a must read book. The included papers represent a strong set of themes indicative of what key workers in the area of NTBF development are thinking at the turn of the millennium. These issues of effective management funding and networking are key themes that will continue into the next millennium. The reviewed book sets out with several ambitious goals and succeeds on every count. It proposes to examine the future quality of NTBFs and challenges us to view the future with an opened mind. The authors' communication is clear and readable and the editors' endeavours for selecting and systematising the information in the field were quite remarkable and rewarding.

The reviewed book offers the reader an amount of data about the development of the High Technology business at the turn of the millennium. There are several groups of readers, interested in problems of NTBFs, who will certainly benefit from studying this book.

All these considerations create for the future precondition that the reviewed book, as part of a series that represents the authoritative voice of NTBF developments, will become one of the most influential books on managing the new product development.

### Stefan Iancu

Professor Dr. **Stefan Iancu** was born in Bucharest, Romania in 1939. He received the MSc. Degree in Aeronautics from the Polytechnic Institute of Bucharest in 1962, and Ph.D from the same institute in 1993, for his contribution to Electronic Control and Governing of Spark Ignited Engines Operation. St. Iancu is industrial property consultant and the author of 8 books and of more than 90 scientific and technical papers in the fields of Data Collection, Industrial Property, Mechatronics and History of Science and Technology. He has a good experience in the research field and he is working now at the Romanian Academy as Scientific Secretary of the Section for Information Science and Technology. At the same time with his main activity, he is a professor in the field of Mechatronics in Bucharest and Targoviste.

**The book "New Technology-Based Firms at the Turn of the Century" is available from the Amsterdam address (P.O. Box 211, 1000AE Amsterdam, The Netherlands), or in the USA/Canada from Elsevier Science Inc., P.O. Box 945, Madison Square Station, New York, NY 10160-0757. One can access the book homepage directly at <http://www.elsevier.nl> (European mirror site), or <http://www.elsevier.com> (U.S.A. mirror site).<sup>1</sup>**

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