Management for Professionals

George Vekinis

The Researcher Entrepreneur

Best Practices for Successful Technological Entrepreneurship

Second Edition

Springer

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George Vekinis
National Centre for Scientific Research Demokritos
Agia Paraskevi, Greece

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Preface

This book has arisen from the recognition that the process of technology transfer via the setting up of a start-up company, as introduced in my previous book, [1] frequently comes to a stop or breaks down not because of any particular innate difficulties associated with the new technology but mainly because commercialisation of results (or "exploitation", as it is often called) requires a rather different set of skills and mindset to those needed to conduct good research. This recognition is often not readily obvious to (or appreciated by) researchers and inventors and is particularly evident in the case of researchers attempting the jump to entrepreneurship without adequate preparation. And yet, a good researcher has, potentially, many of the skills needed for good entrepreneurship.

In the previous book, I made a point of (almost) discouraging researchers and inventors from attempting to proceed with the technology transfer (TT) process through their own venture (i.e. a start-up company) as their preferred first course of action. Instead, I argued that they should opt for a collaboration with an existing healthy company which, by virtue of its good standing in its markets, will be in a better position to get the new technology accepted by users. Such collaboration, if possible and if it comes to pass, offers many potential benefits, not least of which is the financial and engineering backing necessary during this crucial early period as well as readily available capability for comparative pilot and field testing.

It remains a fact, however, that this route is not at all easy to follow or to get just right. A large majority of researchers and inventors who attempt technology transfer often feel that they are banging on closed doors and that the "obvious" benefits and competitiveness that their new technology offers (at least, "obvious" as they themselves perceive them) are not appreciated or recognised by potential users. Over time, many become so frustrated by the constant rebuffs and obstacles they encounter that they eventually consider giving up and withdrawing back into the safe haven

[1] "Mastering Technology Transfer: from invention to innovation. A step-by-step guide for Researchers and Inventors", George Vekinis, Springer, 2023. Referred to in this book as "TT Guide".

of their laboratories. This is obviously something which every country tries to avoid; utilisable research results should always find their way to the market or society.

My premise in this book therefore is that, once they have attempted technology transfer via licensing or co-development unsuccessfully, researchers and inventors whose technology is well proven should consider the alternative commercialisation route of *going it alone*, either by setting up a new start-up company or by spinning off one from a university, research centre, or an existing company. After all, if some researchers and inventors have succeeded in establishing and leading successful start-ups, why not others too?

It is this group of researchers and inventors – we may call them *researcher entrepreneurs* – who this book is aimed at. It is true that the difficulties inherent in such a venture are formidable – as attested by the small number of successful technological start-ups. Yet, it is also true that with sufficient support and knowledge of the crucial "dos and don'ts of entrepreneurship" as well as plenty of patience and perseverance, your efforts can pay off handsomely and your own start-up can become one of the success stories.

This book does not purport to offer all the answers. And it is not meant to be a detailed guide on how to prepare, build and run a start-up company. Many good books exist with detailed information and advice on how to set up a start-up company and how to manage the many facets of its operation, from personnel to marketing and sales.

What this book *does* is to consider and discuss many of the *critical aspects* and *questions* that arise both during the preparatory phases and during the early operation of your start-up. Over the course of many years, I have had the opportunity to witness and study the birth and development of a large number of start-up companies, many of which were spun off from research laboratories in an attempt to commercialise research results. As a result, many common misconceptions have become apparent to me, especially on the part of researchers, which seem to crop up time and time again during attempts to set up a start-up. It is these misconceptions and false leads that so often lead to abortive attempts to commercialise otherwise very promising technologies, and it is these which I have tried to clarify in this book. As is so often the case, it is the failures that teach us most of the lessons connected with entrepreneurship. Whether a start-up fails early or late in its (often short) life, such case studies are particularly instructive and therefore many of the chapters in this book draw on real cases that I have had the opportunity to study closely and often be associated with.

In an attempt at brevity, I have deliberately kept the chapters short so as to focus on the most critical aspects that can undermine or facilitate the researcher-entrepreneur's efforts in his or her efforts to leave the lab and become an entrepreneur.

Perhaps you are reading this book to help you make up your mind, or perhaps you are already convinced to "go it alone" and industrialise or commercialise your brainchild via a start-up or a spin-off company. Whatever your motive, I sincerely hope that you will enjoy reading it as much as I enjoyed writing it and that it will help you on your journey to entrepreneurial success!

Agia Paraskevi, Greece
July 2023

George Vekinis

The original version of this book was revised, and the author biography has been included in the front matter of the book on Page xi.

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About the Author

Dr. George Vekinis is Director of Research at the National Research Centre "Demokritos" (NCSRD) in Greece. In the past, he served as Director of the Education Office of NCSRD, President of the Researchers' Association, President of the Hellenic Society of Condensed Matter and in numerous scientific committees of various conferences. In the past, he worked as a Chief Researcher at the Council for Scientific and Industrial Research in South Africa and as an associate researcher at the Engineering Department of the University of Cambridge, UK. He is currently teaching post graduate courses in Innovation Management at the Technical University of Crete and in Advanced Materials at the Aristotelian University of Thessaloniki. In the past, he was a visiting professor and speaker to many institutions in Europe, Asia, and the USA, a senior consultant in Technology Transfer and Entrepreneurship for the European Commission and a reviewer and impact assessor of many international research projects. He is the President of AIT SA and has mentored a number of start-up companies. He has published nearly 300 publications, reports, and conference presentations, two monographs on technology transfer and entrepreneurship and a popular science book entitled "Physics in the kitchen."

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