
Preface

This book *Innovations and the Environment* aims to review the state of knowledge and to provide an empirical basis for the development and use of new technologies, products and services to reduce the impact of human activities on environmental quality. This is at the core of the debate on economics and the environment. The message is optimistic. Advances in thinking and actions make it possible to maintain high environmental quality at reasonable costs, sometimes even having a positive effect on corporate results. The progress is by no means automatic. Risk taking by entrepreneurs, managers and policy makers is necessary.

The idea to write a book about innovations and the environment was born during discussions with Professor Han Brezet who was convinced of the importance of this subject for engineering students. This is because he has found many stories about the successes and failures of environmental technologies and even more on the impact of technologies on environmental qualities, but no reviews on technology and the mindset of entrepreneurship to explain the forces that drive innovations for sustainable development.

Profitability is this book's starting point because it is essential for any innovator. The basic question is how to achieve profitable innovations for improvements in environmental quality, or as my daughter Mira put it: How can nagging about the environment pay? The material included is largely based on the experiences of companies and authorities in the Netherlands during the 1980s and 1990s that have been global trailblazers in innovating for the environment. The book is a result of my entrepreneurial activities at the Institute of Applied Environmental Economics. Partners and colleagues at the Institute provided a lot of support during its writing. In particular, I am grateful to Jochum Jantzen for the use of so much empirical material on the cost of technologies. Petra Doelman helped me a lot with her experience in business development at starting innovative companies CES and Avanti, and in Philips. Most of all, it was exciting to co-operate with brilliant people working in many companies. I will mention only a few by name, the creators of environmental management who are unfortunately no longer with us: Cees van Leeuwen, environmental manager for the Unilever companies; Jan de Haas, quality manager for retailer Vroom & Dreesman; Cornelis Betlem, business developer at Ahrend, Bram van de Drift of Philips and Coos

Veldman, general director at Wagenborg Shipping. These men have moved environmental management towards the highest standards of social responsibility.

The book was finished during my academic work at the Cartesius Institute. In particular, Professor Andries Nentjes a founding father of environmental economics in Europe helped me avoid many scientific traps through his strong guidance. I am indebted to Simon Tijsma at the provincial authority of Friesland for his valuable comments on conclusions regarding the realities and peculiarities of policy making. Lisa Hayes was extremely helpful with language and Satish Kumar Beella with editing.

This book is dedicated to my mother, Raisa Grigorievna.