Claas Junghans, Adam Levy

Intellectual Property Management

A Guide for Scientists, Engineers, Financiers, and Managers

With Contributions By
Rolf Sander, Tobias Boeckh, Jan Dirk Heerma, and Christoph Regierer

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Preface

To the uninitiated, the world of intellectual property often appears an impenetrable collision of legal, scientific and economic themes. Indeed, the study of intellectual property draws from these three disciplines in a way that our educational and philosophical systems struggle to reconcile. Technically-expert lawyers, scientists and economists find it equally difficult to adopt a holistic overview and to look beyond their specialised field.

Whilst Patent Offices have recently intensified their efforts to be more accessible, publishing readable introductions to the very basic terms of intellectual property, and guides to initial patent application, these laudable efforts fail to penetrate the heart of the problem as we see it: the connection of legal procedure, beyond its mere application, with technological development and the business strategy that drives it.

"Intellectual Property Management" provides an introduction to the world of creating value through inventions. This book is written by international experts who from their day-to-day experience are able to position the technical and legal nature of patents within an economic and commercial framework. Readers are given a clear view of patents as a rational business process, and are presented with a toolbox with which to make careful assessment of the time and money that inventions warrant, concentrating on an assessment of risk, and within this framework, on maximising both value and personal return. From these carefully elaborated fundamental principles, we progress to address more complex and sophisticated issues of intellectual property strategic planning and wider corporate strategy.

The first four chapters of this book treat the aspects of patenting that both an inventor and a manager of an invention-intensive business will need to understand to make meaningful decisions on the subject. In doing so, the authors have concentrated on the underlying principles of the process, which are similar to almost all countries, rather than on precise definition of local regulations. Indeed, readers may note a certain European bias in the book. The European Patent Convention is both the largest judicial entity in the world of IP, and its law, in its synthesis of both Anglo-Saxon and French-German legal influences, presents a paradigm for most other patent systems in this world. The great exception to this rule is the USA, which treats many problems differently from all other systems.

Important differences are highlighted wherever necessary. Moreover, where easily readable literature exists in the English language on patenting, it is likely to concentrate on the US system, and the reader desiring to learn specifically about this system will find literature easily. Nevertheless, we hope that such readers will benefit from our specific treatment of the economic perspective.

Chapter 1, "Terminology", defines the patent landscape, providing an elementary terminology and foundation upon which the reminder of the book builds. Readers already familiar with the world of patents may refer to this chapter as reference whenever needed.

Chapter 2, "The Economic Objectives of Patenting", sets the economic framework in which patents reside, with an emphasis on the formulation of a basic patent strategy and a comprehensive explanation of patent routes and of patent scope and claim breadth. The authors have debated extensively the position of this chapter within the book. We have finally opted for moving it before the technical chapters on patenting, authorship and licensing. This position follows our conviction that in order to make a meaningful use of the legal tools that IP offers, one must define the economic objectives that drive the patenting process. All too often, resources are spent unwisely because the applicants did not consider their motives in submitting the application until far into the patenting process.

Chapter 3, "Patenting", is the most technical chapter of the book. It discusses patent searching, drafting and application, and at what point, and how, to hire an attorney. The chapter concludes with an explanation of patent strategy in a dynamic research environment, and the exploitation of patent families. It must be emphasized that this book does not pretend to be a "do-it-yourself" guide to successful patent applications. Although there are cases where inventors have successfully patented and marketed their inventions, we do not encourage the reader to do so. Nevertheless, the cost and satisfaction of collaborating with a professional patent attorney can, in our view, often be improved substantially if the client, the inventor or applicant, has a good basic knowledge of the process and the variables of patenting.

Chapter 4, "Ownership", takes a step backwards to identify the personal, legal and corporate issues around the ownership of patents, particularly those made by employees, whether or not related to their work.

Trademarks, design rights and other non-patent intellectual property rights are highlighted in Chapter 5. While most chapters address themselves mainly to readers interested in technical innovation, this book's focus on the economic perspective of protection requires the complementary treatise of these "soft" non-technical rights in this context. This protection, which is often more effective in the market and easier to enforce in court, is not of the inner technical "idea" or inventive essence of a product, but of its name and design. Capturing value through product innovation requires the protection of both marketing and technical elements.

Chapter 6, "Licensing", takes a corporate perspective, discussing the licensing of technology IP, exposing the reader to the complexity of commercial and competition law. In doing so, the reader will be prepared to address the key aspects of license drafting and to work fully and successfully with professional advisors.

Chapter 7, "Starting Up", revisits ideas around risk and return, and relates these carefully to the inventor or entrepreneur, outlining how to establish a start-up company around an intellectual property portfolio. Assuming that the inventor takes the advice of the previous chapters, Chapter 8 discusses the real-life application of tax laws around IP for both the individual and corporation. As becomes apparent, consideration of these parameters may have a profound influence on the overall financial balance of the inventive process.

"Intellectual Property Management" covers the spectrum of the patent world, from basic patenting to corporate taxation. This breadth is somewhat unusual, but reflects the authors' conviction that the effective and competitive management of innovation is dependent on an integrated and considered strategy. Engineers and scientists today must be encouraged to think about the commercial applicability and, more specifically, patentability of their inventions. Only with the careful definition of the economic drivers behind an invention, will such patenting create value for its inventors, and more widely, make a meaningful contribution to the broader economy. Poorly written and badly planned applications congest the legal and patent systems, lead to poor resource allocation and are an impediment to economic and technical development.

Well-written, granted patents, on the other hand, that respond to the commercial profile of the applicant, that can be licensed, and which are optimally adapted to the competitive landscape, will have fulfilled their potential, and that of the invention. That is the goal of this book.

Adam Levy and Claas Junghans
October 2005

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Claas Junghans studied chemistry, molecular biology and intellectual property law in Berlin and has held senior management positions in several biotechnology companies.

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Abbreviations

CTM	Community Trademark
ECLA	European Classification System
EP	European Patent, country code for the EPO
EPC	European Patent Convention
EPO	European Patent Office
IP	Intellectual Property
IPC	International Patent Classification
IR	International Registration
PCT	Patent Cooperation Treaty
USPTO	United States Patent Office
WIPO	World Intellectual Property Organization