

Contents

<i>Foreword</i>	<i>page</i> ix
<i>Preface</i>	xi
<i>Acknowledgments</i>	xiii
<i>Abbreviations</i>	xv
Introduction: The Invisible Infrastructure of Innovation	1
PART I. INTELLECTUAL PROPERTY DYNAMICS IN SOCIETY	
1 Intellectual Property and the Innovation Cycle	11
<i>Innovation and creative destruction</i>	11
<i>A brief history of innovation</i>	12
<i>The reasons for innovation</i>	13
<i>The innovation cycle</i>	15
<i>The three stages of the innovation cycle</i>	17
<i>The dark side of innovation</i>	20
2 The Rise of the Intellectual Property System	22
<i>Defining intellectual property</i>	22
<i>The rise of intellectual property</i>	24
<i>The origins of intellectual property</i>	26
<i>The Venetian innovation</i>	29
<i>Evolution of the modern intellectual property system</i>	31
3 Keeping the System in Balance: Exclusion and Access	36
<i>Intellectual property pro and con</i>	36
<i>Rationale for intellectual property</i>	37
<i>Criticism of intellectual property</i>	40
<i>The limits of the public domain</i>	45
<i>Mapping the accessible domain</i>	48
<i>Achieving balance</i>	51
<i>Tensions in the global IP system</i>	53
<i>From the past to the future</i>	56
PART II. BASICS OF MANAGING INTELLECTUAL PROPERTY IN ORGANIZATIONS	
4 The Innovation Tree: Intellectual Property Rights and How They Grow	63
	v

vi	Contents
	<i>The forest for the trees</i> 63
	<i>The innovation tree as metaphor for intellectual property</i> 64
	<i>The old and the new</i> 64
	<i>Differences from country to country</i> 65
	<i>A guide to types of intellectual property rights</i> 66
	<i>Interactions between different types of intellectual property</i> 78
	<i>An innovation forest</i> 81
5	The ABCDs of Intellectual Property: Flow and Infringement of Rights 84
	<i>What can flow?</i> 85
	<i>Infringement – the master model</i> 92
	<i>IP as a motor for the innovation cycle</i> 94
6	The Role of Communities in Innovation 97
	<i>Innovation made in communities</i> 97
	<i>Private communities</i> 98
	<i>Mixed communities</i> 106
	<i>Multinational research consortia</i> 109
	<i>Global initiatives</i> 111
	<i>Open innovation communities</i> 112
7	The Innovation Chief 115
	<i>Types of innovation chiefs</i> 115
	<i>The importance of leadership</i> 116
	<i>The innovation team</i> 119
	<i>Drucker’s views on managing innovation</i> 122
	<i>Other views on corporate innovation management</i> 124
	<i>Intellectual asset management in corporations</i> 126
	<i>Managing innovation outside of businesses</i> 127
PART III. STEPS TO STRATEGIC MANAGEMENT OF INTELLECTUAL PROPERTY	
A: Planning	
8	Becoming Strategic 131
	<i>Levels of IP management</i> 131
	<i>What is strategic management of intellectual property?</i> 136
	<i>Form a strategy</i> 139
	<i>Implement the plan</i> 145
9	Strategy Tools: Policies and Practices for Managing Intellectual Property 147
	<i>The six Ps: policies and practices</i> 147
	<i>Cost management issues</i> 159
	<i>Strategic reassessment</i> 161
10	A Menu of Strategy Options 163
	<i>General goals for IP management</i> 163

Contents	vii
<i>Generalized IP strategies</i>	164
<i>Patent strategies</i>	172
<i>Trade secret strategies</i>	178
<i>Trademark strategies</i>	179
<i>Copyright strategies</i>	181
B: Assessment	
11 Evaluating Internal Resources and the External Environment	184
<i>Internal evaluation</i>	185
<i>External evaluation: assessing the environment</i>	198
12 Placing a Financial Value on Intellectual Property Assets	207
<i>The importance of IP valuation</i>	207
<i>Threshold questions</i>	210
<i>Cost (sunk or replacement)</i>	211
<i>Income (net present value or discount cash value)</i>	214
<i>Market value (comparables)</i>	217
<i>Hybrid methods</i>	218
C: Implementation	
13 Accessing Innovations of Others	226
<i>Implementation as part of planning</i>	226
<i>Simplify, simplify</i>	227
<i>When access is readily available</i>	229
<i>When access is not readily available</i>	231
14 Acquiring and Policing Intellectual Property Rights	239
<i>Protecting innovations from inside the organization</i>	239
<i>Innovation triage</i>	240
<i>Enforcement</i>	253
15 Doing Innovation Deals	263
<i>Basic principles of IP transactions</i>	264
<i>Acquiring IP ownership</i>	265
<i>Owning intellectual property rights</i>	266
<i>Types of transfer</i>	268
<i>Pivotal terms for IP transactions</i>	278
<i>Doing deals</i>	284
PART IV. STRATEGIES ON A GLOBAL STAGE	
16 Organization-Specific Strategies	289
<i>Different growth stages</i>	289
<i>Different industries and sectors</i>	291
<i>Different technologies</i>	301
17 A Comparison of National Intellectual Property Systems	308
<i>Similarities and differences among nations</i>	308
<i>A brief tour of IP systems around the world</i>	315

viii	Contents
18	Global Challenges for Managing Intellectual Property 322
	<i>Securitization of IP rights</i> 322
	<i>Branded and generic drug companies: competing at boundaries of time and geography</i> 325
	<i>Homeland security technology</i> 331
	<i>Cultivating our garden: promoting environmental technology with intellectual property</i> 333
	<i>Regulating biotechnology with intellectual property law</i> 336
	<i>Future IP scenarios</i> 338
19	Intellectual Property, Innovation, and Freedom 342
	APPENDIX A. Excerpts from TRIPS Agreement 346
	APPENDIX B. Intellectual Property Non-Policy 361
	APPENDIX C. Intellectual Property Assessment Questionnaire 365
	APPENDIX D. Research Tools for Obtaining Intellectual Property Information 376
	<i>Bibliography</i> 379
	<i>Index</i> 390