

COMMERCIALIZATION OF INNOVATIVE TECHNOLOGIES

Bringing Good Ideas to the Marketplace

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With regard to errors in general, either falling under the denomination of mental, typographical, or accidental, we are conscious of being able to point out a greater number than any critic whatever.

Encyclopaedia Britannica, 1771 edition

To our wives and children

FOREWORD

I have known Joe Touhill since we were college classmates in the class of 1960 at Rensselaer Polytechnic Institute. The characteristics that impressed me most about Joe were his eagerness to take on a challenge, his common sense, and his ability to size up an issue and then lay out a logical plan for resolution. Most important, then and now, is his ability to follow through to a conclusion. Joe and coauthors, Greg Touhill and Tom O’Riordan, have produced a book that is focused on one of the most exciting and rewarding challenges of our time: *commercialization of innovative technologies*. Economists pretty much agree that innovation on a commercially attractive basis is one of the key economic drivers of our capitalist system. This means having an atmosphere that promotes innovation, with appropriate rewards and incentives flourishing freely. Our system is based on the premise that incentives really do work!

Entrepreneurship is a popular and growing topic in the business world today. There is a buzz about it. The topic is red hot and is a rapidly emerging course of study on most technology and business school campuses. You cannot pick up a business magazine without finding an article on innovation. Furthermore, it is one of the key metrics that analysts look at in rating an organization. How efficient organizations—research, business, government, military and educational—are in utilizing resources to develop innovation is a crucial question. The authors have educational backgrounds in engineering and the sciences with subsequent business training and experience. They have had genuine exposure and responsibility in the world of development on a results-oriented and profitable basis.

The book hammers on the concept of the *innovation team* and its importance to a consistent and repetitive commercialization process. It identifies the players, their characteristics, how to deal with their idiosyncrasies and what to expect as the commercialization process moves ahead. The book brings all the touchy topics into play: compensation and incentives as well as recognition, rewards, and celebration. The maestro (entrepreneur) inevitably is leading an orchestra of highly strung talented individuals. Embarking on a development process without a realistic understanding of these points is foolishness and costly.

The Wall Street Journal suggests that the overwhelming number of innovative ideas since the end of World War II have been commercialized by U.S. citizens. The book suggests that this is changing. Intuitively, we know that creativity is not the sole province of the USA. Because of improvements in global communications, we are seeing global teams put together for the development of ideas. Much of this team building is to take advantage of lower costs in different parts of the world. The innovation team of the future will be looking for the best ideas no matter where they come from. Global teams that we are beginning to see develop is a perfect lead into the topic that this book features uniquely—the innovation team—and understanding how important this concept is.

The book will not turn a poor idea into a profitable one. But it will ensure that attentive readers get a good commonsense strategy in place for identifying, funding, and developing truly good ideas. Of equal if not greater importance, the book will lead you to set up a screening system so that you can quickly identify ideas that do not fit into your strategy and goal profile. If you come away from reading the book with only one idea—the concept that early elimination of time-wasters is crucial to success on a consistent basis—reading it will have been worthwhile. Time really is precious, and things are moving at an ever-accelerating pace. The book takes you through all the steps in sufficient and understandable detail for ease of implementation. It will help you to avoid wasting time and bring discipline to the creative process. Although this may seem like a contradiction in terms, what is business really, if not the application of discipline? The tension between creativity and discipline is discussed candidly. Healthy solutions can only come about with awareness and knowledge. Good things do not happen by accident.

The book does not shy away from difficult questions such as “Can entrepreneurship be taught”? Addressing difficult questions is a hallmark of this book. Anyone who has been through the commercialization process will recognize immediately that the authors have been there. There is considerable benefit to be derived from their experience. The book is

proactive about looking at things that did not go well. How else do we learn if not from our mistakes?

The book is recommended for both students and practitioners (investors, inventors, entrepreneurs, and managers). It will serve as a text for students and as a comprehensive resource for practitioners: those trying to bring innovative ideas to market on a commercially sound basis. The table of contents will serve nicely to direct you to those parts of the process in which you have the most interest.

ROBERT B. SHEH

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Award for the work cited in Chapter 17, is recognized for its outstanding efforts under very trying conditions. We would like to single out the following officers for their special contributions: Colonel Marty Edmonds, Squadron Leader Patrick Del Guidice, and Major Robert Sylvester.

Disclaimers

The views in this book expressed by coauthor Gregory J. Touhill are his alone and are neither endorsed by nor necessarily reflect those of the U.S. Department of Defense or the U.S. Air Force. Similarly, the views of coauthor Thomas A. O’Riordan are his alone and are neither endorsed by nor necessarily reflect those of the Raytheon Company.

CONTENTS

Foreword	xiii
Acknowledgments	xvii
1 Establishing Perspective	1
1.1 Organization of the Book,	4
1.2 The Importance of Viewpoint,	5
1.2.1 The Inventor/Innovator,	9
1.2.2 The Investor,	17
1.2.3 The Technologist,	23
1.2.4 The Entrepreneur,	29
1.2.5 Managing Innovation Team Interactions,	33
1.3 The Importance of Flexibility,	34
1.3.1 Timing Is Everything,	34
1.3.2 The Importance of Determining “Prime Time”,	37
1.3.3 Expanding the Innovation Team,	38
1.3.4 Determining How Much Money Is Needed,	39
1.3.5 Maintaining a Reasonable Pace of Progress,	40
1.3.6 Knowing the Customer,	41
1.4 Can Entrepreneurship Be Taught?,	41
1.4.1 The Difference Between Talent and Skill,	41
1.4.2 Entrepreneurship Programs at Major Universities,	42
1.4.3 Corporate Research and Development Programs,	56
1.5 Key Points,	57

2 Our Perspective **59**

- 2.1 Strategy Development, 60
 - 2.1.1 Rules for Investing, 61
 - 2.1.2 Areas of Interest, 62
 - 2.1.3 Risk, 68
 - 2.1.4 Flexibility, 70
 - 2.1.5 Experience of Others, 71
- 2.2 Technology Assessment, 71
 - 2.2.1 Discovery, 72
 - 2.2.2 Evaluation, 72
- 2.3 Technology Development, 73
- 2.4 Technology Management, 74
- 2.5 Key Points, 75

3 Developing an Endgame **77**

- 3.1 Alternative Endgames, 77
 - 3.1.1 Growing a Company to Maturity, 78
 - 3.1.2 Growing a Company to a Target Point, 80
 - 3.1.3 Selling a Patent or Trade Secret, 83
 - 3.1.4 Licensing a Patent or Trade Secret, 83
 - 3.1.5 Developing a Technology, Then Selling the Patent or License, 84
- 3.2 Using Acquisition to Fill In Holes, 85
- 3.3 Showstoppers, 85
- 3.4 Endgame Objective Realized—Sort of, 87
- 3.5 What's a Widget, 89
- 3.6 Making It Work, 94
 - 3.6.1 Building a Team, 94
 - 3.6.2 Establishing Milestones, 94
 - 3.6.3 Evaluating Progress, 94
 - 3.6.4 Making Decisions, 95
 - 3.6.5 Planning the Celebration, 95
- 3.7 Key Points, 96

4 Finding Ideas **97**

- 4.1 If You Have Money, Ideas Find You, 97
 - 4.1.1 Using a Quick-Screening Technique, 99
 - 4.1.2 Doing the Homework, 100
 - 4.1.3 Having a Network, 100

4.1.4	Having a Referral System and Getting Rewarded for It, 101	
4.2	Ideas Must Be Consistent with the Overall Plan, 102	
4.2.1	Buffets Cause Overeating, 103	
4.2.2	Making a Quick Estimate of Cost and How Long It Will Take, 103	
4.2.3	Remembering to Consult the Budget, 103	
4.3	Inventors/Innovators Must Be Prepared to Give Up Equity, 104	
4.3.1	Structuring the Agreement, 104	
4.3.2	Assuming Success, 105	
4.3.3	Engendering Cooperation, 105	
4.4	Key Points, 105	
5	Investing in Ideas	107
5.1	Beware of Eye-Popping Projections, 107	
5.2	Remember This Is Risk Capital; Only a Percentage of Ideas Pay Off, 108	
5.3	Structure the Payoff When the Ship Docks, Not When It Sails, 109	
5.4	Bet on People with Proven Track Records, 110	
5.5	Take Care in Assembling the Investment Group, 111	
5.6	Key Points, 113	
6	Assessing Ideas	115
6.1	The Assessment Process, 115	
6.1.1	Strategic, Administrative, and Legal Issues, 116	
6.1.2	Technical Issues, 117	
6.1.3	Marketing and Commercialization Issues, 120	
6.2	The Need for Exclusive Rights, 121	
6.3	Technological Assessments Are Easy; Marketing and Business Assessments Are Difficult, 122	
6.4	Ideas That Are 10 Percent Better Aren't Good Enough, 123	
6.5	Not Skimping on Time or Money When a Great Idea Shows Up, 124	
6.6	Tapping the Full Resources of the Team Before Moving Ahead, 124	
6.7	Moving Ahead with Development, Then Revising the Plan, 125	
6.8	Key Points, 126	

7	Paying for and Controlling Ideas	127
7.1	Buyer and Seller Wish Lists, 128	
7.1.1	Buyer Wish List, 128	
7.1.2	Seller Wish List, 130	
7.2	Using Wish Lists to Reach Agreement, 131	
7.3	Is Buying the Company a Good Thing?, 131	
7.4	Intellectual Property: The Most Valuable Asset, 132	
7.5	Paying with Future Profits Whenever Possible, 132	
7.6	Key Points, 133	
8	Developing Ideas	135
8.1	Remember: This Is Business, Not Research, 136	
8.2	Maintaining Control of Development Efforts, 137	
8.3	The Goal of Development Is the Basis of Design, 137	
8.4	The Importance of Feasibility Studies, 140	
8.5	The Value and Meaning of Estimates, 141	
8.6	Knowing When to Celebrate and When to Cry, 142	
8.7	Key Points, 143	
9	Designing and Building Technology	145
9.1	This Is Where the Spending of Real Money Begins, 146	
9.2	Simple Designs Are the Most Elegant, 147	
9.3	The Design Technology Should Be as Good as the Technology Designed, 148	
9.4	The Manufacturing System Should Be Built to Be Flexible, 149	
9.5	Key Points, 152	
10	Demonstrating Technology	155
10.1	Nobody Wants to Be the First to Use a New Technology, 155	
10.2	Everybody Wants All the Details on How Our System Works (Free of Charge), 158	
10.3	A Demonstration Deserves Something in Return, 158	
10.4	When a Showcase Demonstration Works, Invite Everybody in the World to Come and See It (and Not Before), 159	
10.5	How Many Demonstrations Are Enough?, 161	
10.6	Key Points, 162	

11	Standardizing Technology	165
11.1	Custom Suits Take Longer to Make and Are More Expensive, 166	
11.2	Standard Designs Are Cheaper and Easier to Operate (and Fix), 169	
11.3	Modularize Where Possible, 170	
11.4	Cooperate with Suppliers and Partners, 171	
11.5	Key Points, 172	
12	Packaging Technology	175
12.1	Overcome the Stigma of Being First, 175	
12.2	Determine What Needs to Be Done to Make Technology Appealing, 178	
12.3	The Art of Being Cool, 179	
12.4	Protect Our Proprietary Rights Aggressively, 180	
12.5	Key Points, 181	
13	Applying Technology	183
13.1	Off-the-Rack Suits Require Alterations, 183	
13.2	Alterations and Options Always Cost Money, 184	
13.3	Make Technical Support Easy and Accessible, 185	
13.4	Good Service Generates More Business, 186	
13.5	Key Points, 187	
14	Marketing and Selling Technology	189
14.1	The Difference Between Marketing and Selling, 189	
14.2	Selling Value, Not Cost, 190	
14.3	Don't Waste Time with People Who Aren't Serious, 192	
14.4	The Importance of Market Share, 193	
14.5	Marketing Tools, 193	
14.6	Measuring Performance, 194	
14.7	Technology Quotas and Retention Requirements Are a <i>Must</i> , 196	
14.8	Key Points, 197	
15	Tracking Technology	199
15.1	Make Certain the Buyer Is Applying the Technology Correctly, 199	

15.2	How About It If We Operate Your System for You?, 202	
15.3	Publicize Success, 204	
15.4	Know When to Move On, 205	
15.5	Key Points, 205	
16	Monitoring Technology	207
16.1	Make Sure We Are Collecting All Revenue That Is Due to Us, and Devise a System to Make It Happen, 207	
16.2	Arrange for Visitors to Have Free Access to Customer Sites, 209	
16.3	Obtain Access to Operating Data, 210	
16.4	Key Points, 212	
17	Improving Technology	213
17.1	Figure Out Ways to Make the Innovation Better, 214	
17.2	String Technologies Together to Form Integrated Systems, 215	
17.3	Using Technology to Innovatively Transform the Battlefield: RIPRNET, 216	
17.4	Close Air Support a Phone Call Away, 224	
17.5	Remember That the Most Efficient Sale Is to a Repeat Customer, 227	
17.6	Often It Is Much Easier to Increase Profit Margins on Existing Technology Than to Start from Scratch, 228	
17.7	Key Points, 228	
18	Building on Success and Learning from Failure	231
18.1	“Chase Them to the River”, 231	
18.2	Investing in Improvements, 233	
18.3	Identifying New Opportunities, 234	
18.4	Everybody Makes Mistakes, but the Biggest One Is Not Learning from Them, 235	
18.5	Key Points, 236	
	Bibliography	239
	Index	241