

Preface

Few would deny that small entrepreneurial firms play an important economic and social role. Not only do they generate a significant number of jobs but they also contribute a large proportion of gross national product (GNP). Not all small firms qualify as entrepreneurial entities, however. While “small” refers mostly to size, “entrepreneurial” refers to growth and a value-creation orientation. The vast majority of small firms have no growth aspirations, nor do they have the means and skills to grow. As such, they may still provide employment and local value but would not embrace the high-potential aspirations of entrepreneurial ventures. This book clearly addresses those entrepreneurs who are interested in leading high-growth-potential companies (*Table 1*).

Table 1 Growth Typology of Small Firms [1]

Type of venture	Desired sales range	Future employees
Lifestyle	0 to \$1 million	0 to 4
Smaller high potential	\$1 million to \$20 million	5 to 50
High potential	over \$20 million	Over 50

High-innovation technology-based startups assume a very special role in high-growth entrepreneurship. Although these startups constitute a comparatively low number of small businesses, they produce proportionately far more jobs than their low- and medium-innovation counterparts. The aim of achieving rapid growth is typically referred to as *high-expectation entrepreneurship*. An area of major concern to us is a fact revealed in the latest GEM¹ report: The rate of European high-expectation entrepreneurial activity is among the lowest in the world. In light of this, we pursue several goals with this book. First, we wish to demonstrate that there are, in fact, highly promising high-growth-potential ventures in Europe.

¹ GEM – the Global Entrepreneurship Monitor – was created in 1997 to study the economic impact and determinants of national-level entrepreneurial activity across 44 nations. GEM operates as a not-for-profit international academic research consortium.

Second, we feel that business and management schools need to do a better job of sharing the many hard-earned lessons across such ventures to help guide their development. Finally, we hope that our examples may help inspire future entrepreneurs to take on the challenge and to follow suit – equaling or even exceeding the achievements presented in our cases.

Why This Book on Science-based Entrepreneurship?

There has been a burgeoning interest in high-tech, high-potential entrepreneurship, much of it directed toward Internet-type businesses. A considerable share of high-technology entrepreneurship is, however, contributed by startups in the realm of science. This can, of course, include specific Internet businesses, but there is much more emphasis on commercializing research from disciplines in engineering and the natural sciences.

This book focuses mostly on ventures stemming from technological breakthroughs rather than from ongoing incremental product innovations or modifications. The companies we feature have established their business around ideas and findings from fields such as biotechnology, biomedicine, micro- and nanotechnology, and information science. Many of the companies are located in science parks close to universities or research centers or have capitalized on research projects supported by the resources of these institutes.

This interface between the generators of fundamental research-based knowledge (universities and research centers) and the marketplace is a complex and poorly understood one, in which Europe has indeed suffered from a much delayed reaction time. With the majority of research centers financed with public money, and the academic community's disregard for business applications, there was little incentive to try to market what was created in the labs. Researchers were mostly state employees, with no interest in (or sometimes even prohibited from) considering potential business applications and pursuing them. When public financing started to dry up, research institutions were forced to consider secondary sources of funding, in particular finding ways to capitalize on their knowledge and intellectual property. Many leading-edge institutions initiated "commercialization" efforts, actively promoting the dissemination of their research and the generation of streams of royalties. What was begun out of dire necessity proved to offer them a new level of autonomy vis-à-vis their public backers to pursue research efforts that otherwise might not have received official blessing. In other words, earlier financial motives have led the way to a warmer and deeper embracing of the need to collaborate effectively with the business world.

We wanted to create this book because science- and technology-based startups account for a disproportionate share of major, radical innovations. Frequently, they lead their industry in adapting to changing circumstances, often far ahead of larger, more established firms. These high-tech ventures assume a critical role in the "creative destruction" process underlying a flexible, dynamic economy [2].

However, their position is usually precarious, carrying high levels of risk that are inherent in these disruptive conditions. Managing the extremely complex and uncertain process of discovering and developing new technologies and markets at the same time is the focal point of our cases. They show that a great many factors need to come together to create a successful technology venture. A first-rate idea and superior technology do not suffice. Engaged and experienced management teams, a solid network of partners, proper support infrastructures, qualified employees, and the like are just as critical. Professional management, in particular, can raise the odds of success considerably, as many of the entrepreneurs we talked with readily confirmed:

It is hard to tell which exactly sets you apart, whether technology or management. But I have seen so many companies run into difficulties along the way – and it was always good management that got the company out of danger.

Dr Andrea Pfeifer, CEO, AC Immune, Swiss biotech startup

In addition, science-based ventures typically consume plenty of resources, and it is common knowledge that resources are one of the biggest constraints, if not the single biggest constraint, in the entrepreneurial process. We cannot guarantee that by reading this book the would-be entrepreneur will overcome these constraints and suddenly draw level with the Yahoo!s of this world, but our cases and the related material illustrate the challenges ahead and help pave the way for mastering them properly.

Supporting European Technology Entrepreneurs

It is precisely this link between technology and management that is the focus of this book. It covers in depth the challenges and rewards of new venture creation based on scientific or engineering products. Our collective experience in researching, teaching, and consulting in the field of technology-based ventures has resulted in material designed specifically, but not exclusively, for technically trained students and managers. Guided by our teaching practice in many different graduate and executive teaching programs at renowned business schools in the USA and Europe, we have put together a set of current and effective case material that highlights what technology entrepreneurs face when building their ventures.

The book primarily targets engineering and science students who wish to learn about and actively engage in entrepreneurial activities by creating their own company, by working for a startup, or by spurring innovation within a larger organization. The number of educational programs targeting these students has increased significantly over the last few years. But we believe that the majority of these programs fail to address the particularities of creating viable businesses based on science and engineering. Motivating engineers and scientists to become entrepreneurial has particular appeal in view of the abundance of technological knowledge

hidden in today's research institutes and technology-based enterprises waiting for commercialization. Furthermore, with the case studies in this book, we hope to foster a general appreciation of technological venturing among current and future business leaders.

We do all this with an intentionally European perspective. While we have all marveled at the many quasiproverbial and highly publicized "garage to riches" Silicon Valley stories, the reality is that the majority of startups take very different routes to success, and success itself is often much less spectacular, rarely making front-page news. Nonetheless, they can be exciting journeys in their own way and contain invaluable learning regardless of whether the venture is ultimately successful. The ups and downs, the failures and mistakes, the rollercoaster ride from exhilaration at early market successes to depression at the viciousness of competitive reactions, although less publicized, might at times be closer to most entrepreneurial realities. To capture and preserve such learning – rather than it being lost during the termination or acquisition of a startup company – is an important objective of this book. Finally, while the examples and principles in the book are applicable globally, we wanted to bring forward examples from the science and engineering space in the specific context of Europe. Even though it was slow in making a concerted effort in this field, Europe is now fighting back to create a more entrepreneurial culture and exploit its research infrastructure.

In 2007, seven years after the European Council put forward its Lisbon Agenda to transform the EU into "the most competitive and dynamic knowledge-based economy in the world," Europe still does not fully exploit its entrepreneurial potential. One might debate whether perpetual comparison with other economies helps, but in fact the natural benchmark – the USA – is without a doubt the most successful country when it comes to nurturing startups and entrepreneurial spirit. Using this as a point of reference, we find that Europe indeed seems to lag behind. Let us discuss some statistics on the gap that Europe is attempting to fill.

When it comes to general entrepreneurial intent, only 45% of Europeans would ever like to be their own boss, as opposed to 61% of Americans, who are keen to try entrepreneurship [3]. Likewise, the effective total entrepreneurial activity, *i.e.*, the number of people actually involved in nascent startups and companies younger than 3.5 years, is double the rate in the USA (12%) than it is in Europe (6%).² In addition, a survey on attitudes toward entrepreneurship estimated that 26% of Americans would refrain from starting a business because of the risk to income and career. Double that figure and you will get closer to the European view, where 46% hesitate to start a business because of the risk factor [4]. This is also mirrored in the motivation factor to start a new venture: according to the Eurobarometer on Entrepreneurship, a regular income is the main motivation for those Europeans who prefer employee status – 30% of respondents cited this reason compared with only 16% of Americans [5]. However, what gives particular cause for concern is the

² The European figure is a mean of all European countries as reported in: Minniti, Maria, William D. Bygrave, and Erkkö Autio. *Global Entrepreneurship Monitor: 2005 Executive Report*. GEM, 2005.

lack of entrepreneurial talent with high ambition. As the 2005 GEM report on high-expectation entrepreneurship reveals, in the USA 1.6% of the adult population has the intent to employ more than 20 people within a time horizon of five years; this is three times as high as in Europe [6].

The perennial question is, Why do these differences exist? While it is unlikely that we will be able to provide sufficient answers in this book, we hope to provide ample evidence that the European startup scene is very much alive. By making this known, we hope to contribute to a rising awareness and confidence that successes are reproducible – even in “the Old World.” A lack of examples is what many sources state as a distinguishing factor between Europe and the USA. Thus, it boils down to educating people, which is one of the primary means of influencing positive attitudes.

For a long time, the educational process has been identified as a crucial ingredient in encouraging entrepreneurship and shaping attitudes, skills, and culture. While the USA offered its first entrepreneurship classes as early as the 1930s at Harvard University, Europe’s research institutes and universities only started doing so in the 1990s, with most research centers only founded after 2000 [7]. Ongoing efforts are therefore under way to spur entrepreneurial education on the European side of the Atlantic. Yet, better integration and sharing – and in particular more public-private cooperation to foster the exchange of knowledge and examples – is needed, as a recent conference on entrepreneurship education in Oslo in the fall of 2006 revealed [8]. Europe still needs to catch up but is attempting to do so with full vigor, which will surely bear fruit in the years to come.

Entrepreneurship Clusters: Providing Infrastructure, Critical Mass, and Example

Startups tend to locate in clusters [9]. This is logical when one considers the power that examples can exert on potential entrepreneurs, the infrastructure (including human and financial resource availability) that can be exploited, and the atmosphere that propels entrepreneurial intent. To try to re-create the dynamism of Silicon Valley and the greater Boston area, Europe is actively promoting the development of entrepreneurial “clusters.” So where are these clusters? Several regions come to mind, for example London and Cambridge (UK), Dublin (Ireland), Munich (Germany), Stockholm (Sweden), Zurich (Switzerland), and Sophia Antipolis (southern France). However, depending on which expert one asks, they will likely think of even more clusters, presumably in their home country. There is no such thing as *the* commonly agreed-on European startup cluster. So far, no place has reached the critical mass of ventures to be the single magnet for entrepreneurs. One of the problems with these European clusters is that they seem to be without either internationally known pillar companies – like HP, Intel, or Xerox in Silicon Valley – that would serve as huge success stories or internationally known research institutes, such as MIT in Boston. While we cannot easily conjure up these institutions, active

policy and cross-country coordination in Europe might allow for the development of a few regions as potential clusters in this vein.

Legal and Administrative Systems: Harmonizing for a Larger Market

Europe is still highly fragmented compared with the USA, which has about 300 million people living and working in a relatively cohesive administrative framework, speaking one language, and sharing roughly the same culture. Yes, Europe has managed to harmonize many regulations and to introduce the euro – which has become a well-accepted common currency – and many borders have effectively been abolished. However, the euro is used only in parts of the EU and we still face the challenges of having different languages and many different national legal systems, which certainly hamper the much needed mobility of resources. There is no easy way around this if Europeans want to preserve what they are so proud of – diversity. It is important to acknowledge this difference, try to harmonize where possible, but also see it as a promoter of a unique entrepreneurial culture. The examples in this book show that many startups face the challenge of internationalization very early in their development – something their American peers can wait much longer to do. This does not need to be a disadvantage for the Europeans. Indeed, quite the opposite – thinking internationally from the outset can make for much bigger opportunities.

In addition, recent research shows that, at least for venture-capital-backed companies, the differences in the legal framework are less influential than commonly assumed. The bigger difference seems to be made by the level of sophistication of financiers, in particular venture capitalists (VCs) [10].

Access to Venture Capital: Improving Europe's Biggest Infrastructure Challenge

All startups need capital, and many of the startups we talk about in this book need vast amounts of money, which can rarely come from the usual friends and family or out of early revenues. They need venture capital or private equity money, which has historically been less available in Europe (*Figure 1*).

For a long time, Europe's financiers have been less active and also less effective than their US counterparts [11]. Studies show that US VCs generate significantly higher returns and tend to be more active in their investments, insofar as they invest on average twice as much in their portfolio companies, tend to apply stronger control and contingency financing, and organize themselves in larger syndicates [12]. However, on both sides of the Atlantic VC activities suffered from a severe downturn at the start of the new millennium and only showed signs of revival in 2005. Totalling US\$25.5 billion in 2006, US VC investments have, for example, reached a five-year high. Europe, by contrast, still offers a mixed

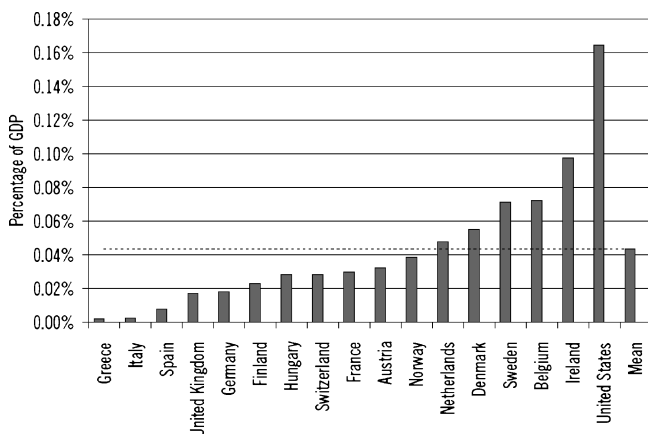


Figure 1 Classic High-Tech Venture Capital Investment in Europe and the USA as a Percentage of GDP in 2004

Source: Minniti, Maria, William D. Bygrave, and Erkkio Autio. *Global Entrepreneurship Monitor: 2005 Executive Report*. GEM, 2005.

perspective: while investments in eastern Europe are predicted to make a splash of 59% growth in 2007, western Europe is expected to slow down a bit [13].

Still, we must keep in mind that VC investments are suited to the big market opportunities for startups with a defendable competitive advantage that grow rapidly and thus demand external capital. Historically, European startup founders have been less concerned with growth. They tend to build their companies more slowly and to less ambitious sizes, thus requiring smaller amounts of money. Yet Europe has also lacked a culture of smaller investments beyond those from family and friends. Awareness of microloans, for example, has only recently started growing. Furthermore, Europe has long suffered from a significant lack of a business angel culture because it did not have that many people who had made their wealth through business rather than inheriting it. The former would typically want to give something back, but their numbers are expected to grow relatively slowly in Europe.

Key Learning Points

Often we are asked how to realize greater value from the investment and effort going into nurturing science and technology entrepreneurs, in particular in terms of generating more growth for the economy. This interest arises from many different stakeholders, including policymakers, educational institutions, and the entrepreneurs themselves. While no two ventures are the same, many share common challenges that need to be mastered. These challenges lie at the heart of this book. In our fieldwork, we have encountered and documented many ventures, some

clearly successful and others less so. A common denominator from the successful cases, though, is the ability to exploit technology to create unique and high-value solutions for customers. Even though the stars are likely to operate in highly attractive markets and industries, we also provide ample evidence that there are niches in less attractive environments, which creative and innovative entrepreneurs take advantage of. But how do they do this? Let us share with you some of our findings:

- It is all about markets and customers. Identify them properly and listen to your customers; they know about the problems *and* the solutions. Get them involved early and frequently during the development of the new technology.
- Provide early proof of concept. Prototypes talk better than long stories and also help you pinpoint major flaws rapidly.
- Get exposure quickly and repeatedly. This will not only help you refine the product or service, but the feedback may likewise reveal deadly flaws in your project. Early warnings are better than later ones.
- Adoption is a slow process, even more so in fields based on technical sales. Many parties, including layer after layer of engineers, will be involved, and each will take its time. You are in a hurry; they are not. Your rush is *not* their concern. Actually, making you wait is just a test of your staying power, *i.e.*, your ultimate business credibility. It makes sense for them to have you wait. Your sales cycles will be *very* long, and you will have to finance them.
- There is no such thing as overfocusing. You really need to fine-tune your product/market mix. You do not have the time or the money to pursue broadly defined markets, even though your product could probably serve all of them. Unfortunately, startups often die of opportunity overload, not lack of opportunity. Strategy is about choice, and making choices when you have been bootstrapping for years, as is often the case with startups, is even more difficult. It is nevertheless a *sine qua non* condition for success.
- Greed kills with great certainty. To succeed, you need the help of many parties. Never underestimate their contributions and make sure they are aggressively co-opted into your project. Management and technologists are equally important: make sure to recognize both. You will leave a lot of money on the table, but that is indeed the cost of building a sizable company.
- As a startup, even with the best idea or technology, you have zero credibility with potential customers. They *do not* need your solution. They *do not* want to deal with startups. They actually *hate* startups in general. Remember, you are a threat to them, and your ways and means are totally foreign to them. You will have to convince them that you can add value to them and that you are a credible partner.
- Building credibility often involves your choice of financial partners. Convincing a top-notch VC, a specialist in early-stage, high-potential, technology-based ventures, for example, to invest in your firm can make the difference between obscurity and a seat at the table.

- Financing in growth-oriented companies is *not* a one-shot process. You will be back at it repeatedly, exploiting each milestone reached in the project to raise the next tranche (round) of money for your venture. Who you bring in to finance the project says more about you and the potential of the venture than the amount of money involved. Financing is the ultimate signaling device. As the saying goes, “Money talks.”
- Never underestimate the value of a great management team. Technology does not sell itself – it never did and never will. You will need the best managers with deep, industry-specific know-how on board.
- The plan will only be valid for as long as it takes for the ink to dry on the document. What you need to develop and build into the venture is the ability to respond instantly and permanently to evolving market conditions. You will learn every day, and every day will bring its new challenges. Nothing is set in stone, and you can expect your competitors to wreck the best laid plans rapidly.
- You do not win because of the best plans or because of the best management team. You win because your competitors let you win. Don’t expect this to happen too often. So luck is indeed important. But luck tends to favor the prepared mind.

Organization and Features of This Book

This book has primarily been designed for teaching purposes, *i.e.*, for class discussion in the field of entrepreneurial studies, and is thus geared toward lecturers and students. However, it will also be helpful reading for self-learners and prospective entrepreneurs, private investors, or VCs interested in the subject.

Each case in the collection has been written to stimulate discussion and to allow the student to develop an understanding of the processes behind creating a new company. For those who specifically plan to launch their own business or are in the midst of the process already, the case collection will present a valuable source of ideas and opportunities to evaluate their own situation. Those who, by contrast, are not actively seeking to become involved in a startup might still learn to value the entrepreneurial mindset and apply certain concepts to their own mode of working. For example, as large corporations increasingly adopt some of the concepts of open innovation – for example, sourcing innovation from outside and forging alliances with small companies – we hope this book may also help readers to more fully understand and appreciate the environment and constraints of startup companies so that such collaborations can become more successful. To reflect that entrepreneurial activity indeed does not only occur in independent new ventures but also in large corporations, the book also includes a set of cases dedicated to corporate venturing. They might be of particular interest to managers in the R&D function of larger organizations who are increasingly bringing on board concepts and valuation models that VCs apply when assessing pure play startups.

Target Market

In essence, our intended audience is:

1. Technically trained managers from technology- or knowledge-based industries, some of whom may actively be considering starting their own company. A manager in such a situation, perceiving an opportunity but without much business management experience in a small company, will find the text helpful in laying out the steps necessary to take the opportunity to the next level.
2. Graduate students in engineering and sciences with almost no prior practical training in business or management. These students fall into two groups. The first group is doctoral student researchers who have developed some technology they would like to commercialize or spin off from their university. The second group is master's level students in science or engineering who would like to take elective classes in entrepreneurship or are motivated to learn more about the topic by themselves.
3. Graduate business school students thinking of starting a high-tech company. There are several different contexts in which this book may be considered within business schools. The first is as a standalone elective in technology entrepreneurship as part of a larger entrepreneurship program. The second is as a module in a "traditional" entrepreneurship course where the instructor would like to pay attention to science- and technology-based ventures. The third is as a module in a course on technology commercialization from universities. The fourth is as a module in a course on corporate venturing, technology strategy, or corporate renewal.
4. Graduate students in public policy or studying university-industry relations. They will find useful examples of how firms in regions that were traditionally less viable in entrepreneurial activity have lately begun to show great promise.
5. Managers inside large technology companies who are responsible for inculcating a more entrepreneurial spirit or who may need to evaluate external technology ventures.

The Case Study Approach

The book features close to 30 *individual real-world ventures*, many of which we will accompany for a period of time, through a series of case studies (which brings the total of cases to more than 40). All but two cases are based on original field research supported by the respective companies and entrepreneurs – reporting actual events and management dilemmas. They give examples of successful and less successful startups and thus provide a complete and authentic learning experience. The majority of the cases have been successfully used in undergraduate, graduate, or executive education programs at IMD and EPFL. Some have already won case awards, for example, *The "mi adidas" Mass Customization Initiative*

(2006 ECCH Case Award, 2004 POMS International Case Writing Award); *Innovation and Renovation: The Nespresso Story* (2003 efmd Case Writing Competition); *Optima Environnement S.A.: Turning a Wonder Tree into an Eco-business* (2006 efmd Case Writing Competition, Special category); and *Boblbee (D): The Urban Backpack* and *Boblbee (E): Inventing the Urban Nomad* (2006 efmd Case Writing Competition, Entrepreneurship category).

Case studies are an indispensable tool for modern education as they permit interactive learning based on rich, complex, and authentic situations. From our long-standing experience, using cases allows for lasting impact as the students actively participate in the analysis and solution of practical problems. The exchange with both teachers and class participants can compound the group's knowledge and create a highly dynamic learning environment. All our cases are written in a language and style that not only academics but also managers appreciate and understand. Whenever possible, they include reflections and direct quotes from the entrepreneurs themselves. And while none of the presented cases individually aspires to holistically span all topics prevalent in entrepreneurship, taken together we hope they paint a true picture!

Book Outline

To create a comprehensive picture of entrepreneurial activities, the book is arranged in five chapters tracking the typical life cycle of creating and growing a new venture. This includes recognizing and evaluating opportunities, creating viable business plans, securing financial resources, managing growth, and, eventually, harvesting the created value. In the sixth and final chapter, we also account for the view of large firms by including studies on corporate entrepreneurship and the integration of internal and external knowledge to successfully seize new business opportunities. Each chapter consists of a general topic raiser introducing the key learning points and giving a brief rundown of the case studies included in that chapter to highlight particular aspects. The rest of the chapter consists of the case studies themselves. The case mix includes both brief "issue raisers," focusing on one specific problem, and more substantial cases, which can easily expand over a teaching block or two for their richness and complexity.

A schematic overview of the book outline and the corresponding cases is given in *Exhibit 1*.

We begin where each venture starts – with a good idea that shows the firm's business potential, *i.e.*, an actual opportunity. In fact, it is imperative for the aspiring entrepreneur to understand the difference between a good idea and a real business opportunity. This is the focus of *Chapter 1: Opportunity Recognition*. Here we discuss what it is that defines a promising business opportunity and how to check for it before sinking resources into it. Quickly separating the outstanding opportunities from the rest is crucial, and this ability usually distinguishes more experienced entrepreneurs from less experienced ones. Furthermore, for the

inexperienced or would-be entrepreneur, business opportunities often emerge like a miracle. We show that this is typically a misunderstanding: ideas might appear to pop up like mushrooms after a rain storm, but there is indeed a process to shaping business concepts that will have a chance to thrive. Also, we discuss some prototypical arbitrage situations from which promising concepts can emerge, for example, when industries converge or macroeconomic trends shift, and the like. Four cases to illustrate possible processes when shaping an entrepreneurial business opportunity complete the chapter.

Quickly extracting those ideas with star potential is just one step in the long journey to a new venture. The next phase directs the entrepreneurial activity toward more detail and focused planning activity. Of course, there is some ambiguity in planning and there is not a “one-size-fits-all” approach. Despite all the planning, successful venturing remains a stochastic and iterative process, requiring dedication, perseverance, and the ability to learn. An essential ingredient in any business is a rock-solid business plan, and this is the focal subject of *Chapter 2: Planning the New Venture*. The chapter covers the contents and the “how-to” of a business plan in detail. We highlight particular aspects that are key for success, such as the new venture team and the marketing strategy, including competitive advantage and positioning of the venture. The nine cases included here deal with various aspects of the business plan, from drawing it up for the first time to revising it repeatedly – an essential process, as cases like the VistaPapers series show.

The aspiring entrepreneur will realize that a fundamental characteristic of many entrepreneurial endeavors is the imbalance between the resources currently in their possession and those needed to capitalize on opportunities. *Chapter 3: Venture Financing* therefore focuses on how to develop a proper financing strategy for early-stage, higher-risk ventures, which investors to target, and how to develop a compelling investment case. Notably, few of these ventures truly face pure financing problems but more complex “resourcing” issues, *i.e.*, how to get access to the extensive collection of resources needed to succeed, such as management skills, distribution channels, networks, technology, and the like. In many instances, money will indeed provide access to those resources. However, attracting investors is purportedly the most challenging task for small organizations, in particular if the entrepreneur is inexperienced and without a track record demonstrating his or her ability to generate the returns commensurate with the risks involved in new ventures. In situations of funding constraints, where access to finance is limited or associated with huge costs, it becomes critical to use the fundraising exercise in a more creative manner, as a holistic approach to gaining resources for the firm. In addition to the case studies that portray the creativity necessary in entrepreneurial finance, we include a comprehensive technical note focusing on the venture capital contracting process. It provides an overview of the main contractual features of venture capital contracts, explaining their *raison d’être* and their theoretical grounding and rationale.

Assembling a skilled team, writing a compelling business plan, and securing the initial financing are just the first steps in the long journey to a viable venture. As *Chapter 4: Growing the Entrepreneurial Firm: Building Lasting Success*

shows, new challenges and requirements await the aspiring entrepreneur along the way: in fact, only one in ten firms can measure up to the challenges of growth and manage to employ more than ten people. Many firms fade away in their first two years, without ever having experienced “good times.” Most of them perish due to a lack of resources, legitimacy, and coordination (*liabilities of newness* and *smallness*). So, how do the more successful companies actually manage to acquire legitimacy, status, and reputation? What distinguishes them from the less successful ones? There are a myriad of factors making a firm successful – from leadership and management qualities to well-thought-out growth strategies – as portrayed in the case collection of Chapter 4.

For all the time, money, and personal energy the entrepreneur and other stakeholders invest in building a venture, they certainly expect adequate rewards at some point in the future. The process of turning some of the value created into hard cash for the investors is referred to as “harvesting,” and various strategies for this are the focus of *Chapter 5: Harvesting*. Often, harvesting is not at all important in the entrepreneur’s considerations, especially if the business is more a lifestyle affair, only required to generate a living for the founder. By contrast, the types of ventures we showcase in this book are unlikely to be run “as is” forever. They have a significant number of outside investors, who may be looking for a return on their money and value they helped create. Defining harvesting goals and crafting a strategy to achieve them, however, goes well beyond satisfying stakeholder interests. It also keeps up motivation and helps stay focused beyond the next quarterly results. In fact, harvesting should not be conceived of as a terminal activity or the end of the venturing process. Rather, it is the necessary step toward recycling the entrepreneurial talent and capital, offering the opportunity to both external investors and the entrepreneur to pursue other plans and ventures. Having a clear, ambitious exit target, such as an initial public offering (IPO), can keep all parties focused and driven to a commonly satisfactory outcome. Thus the cases we have chosen for Chapter 5 demonstrate that harvesting should be seen as another of the fundamental steps in the entrepreneurial process, requiring full preparation and management.

While Chapters 1 to 5 talk about the creation of new businesses as independent startups, *Chapter 6: Corporate Entrepreneurship* throws light on another facet of entrepreneurial spirit. Today, many well-established and large companies engage in entrepreneurial activity, *i.e.*, corporate entrepreneurship (CE). CE may be broadly viewed as (1) the creation of new businesses within existing organizations, either through internal innovation or joint ventures and alliances, or (2) the transformation of organizations through strategic renewal [14]. Large firms embark on it for various reasons and with various approaches. Mostly, the aim is to rejuvenate a firm, create value, and sustain competitive advantage. We will explore the different strategies pursued in this regard in the cases in this chapter, which include examples from five prominent companies.

Exhibit 1
Building Blocks of this Book

1	2	3	4	5	6
Opportunity Recognition	Planning the New Venture	Venture Financing	Growing the Entrepreneurial Firm: Building Lasting Success	Harvesting	Corporate Entrepreneurship
Topic lead-in and case introduction	Topic lead-in and case introduction	Topic lead-in and case introduction	Topic lead-in and case introduction	Topic lead-in and case introduction	Topic lead-in and case introduction
Optima	Shockfish (B)	VC Primer	IR Microsystems (B)	EndoArt (B)	Ducati (A)
Cognosense	IR Micro-systems (A)	AVIQ Systems	IR Microsystems (C)	Sentron (A)	Ducati (B)
Shockfish (A)	InMotion Technologies Ltd	Tatis Limited	AC Immune	Sentron (B)	Logitech – Culture
Redigo	Boblebee (D)	Genedata	Covalys (A)	4M Technologies	Logitech – Digital Pen
	VistaPapers (A)	Venture Valuation	Dartfish	Generics	mi adidas
	VistaPapers (B)	Novartis Venture Fund	Netcetera (A)	GigaTera	Tetra Recart
	VistaPapers (B-2)		Netcetera (B)		Nespresso
	VistaPapers (C)		Netcetera (C)		
	Lyncée Tec		Boblebee (E)		
			EndoArt (A)		
			Google		

Exhibit 1 (continued)
Case List

Page	Case Name (abbreviated)	Business Focus	Topics
1. Opportunity Identification and Evaluation			
11	Optima Environnement	Commercialization of raw material (plants)	Opportunity assessment; finding a business model
27	Cognosense	Applications for mobile content services	Opportunity assessment, business model, and positioning
47	Shockfish (A)	Conference networking systems	Evaluation of a business opportunity
53	Redigo	Environmentally friendly vehicle engineering	Evaluating and defining the relaunch of a product
2. Business Planning: Defining Entry Strategies, Protecting Competitive Advantage and Dealing with Uncertainty			
107	Shockfish (B)	Conference networking systems	Shaping the business
111	IR Microsystems (A)	Infrared spectrometer: devices and applications	Market validation
131	InMotion Technologies	Sports training and entertainment applications	Definition of business model, marketing mix
143	Boblbee (D)	High-tech backpack design and manufacture	Defining the target clientele, integrated marketing strategy
167	VistaPapers (A)	E-printing	Developing a business plan
179	VistaPapers (B)	E-printing	Developing a business plan
187	VistaPapers (B-2)	E-printing	Revising the business plan
189	VistaPapers (C) Vistaprint	E-printing	Revamping the business model – reacting to external change
199	Lyncée Tec SA	Holographic microscopy: devices and applications	Drawing up a viable business plan
3. Financing New Ventures			
241	VC Primer	Overview of venture capital market/structures	Roles and key clauses in investment contracts
295	AVIQ Systems	Integrated audio and visual entertainment devices	Assessing startup financing alternatives/financing growth
311	Tatis Limited	Business-to-government IT solution	Finding the right (financial) partners
323	Genedata	Bioinformatics, analytical software	Preparing for the valuation
333	Venture Valuation AG	Venture valuation	Early-phase venture evaluations
355	Novartis Venture Fund	Pharma/biotechnology	Evaluating an investment

Exhibit 1 (continued)

Page	Case Name (abbreviated)	Business Focus	Topics
4. Managing Growth: Redefining Business Strategies			
383	IR Microsystems (B)	IR spectrometers	Back to the drawing board – revising business goals
395	IR Microsystems (C)	IR spectrometers	Moving forward – refocusing resources and extending development partnerships
397	AC Immune SA	Biotech – research into Alzheimer’s cures	Going from research to development and managing options
413	AC Immune SA Handout	Biotech – research into Alzheimer’s cures	Strategic alliance
415	Covalys (A)	Biotech – components	Revvig up the business
429	Covalys Handout	Biotech – components	Expansion plans
431	Dartfish	Sports training and entertainment applications	Redefining the business model/product portfolio
443	Netcetera (A)	Enterprise information applications	Growth issues: hire an external CEO?
453	Netcetera (B)	Enterprise information applications	Restructuring the organization for sustained growth
463	Netcetera (C)	Enterprise information applications	Strategic growth options
465	Boblbee (E)	High-tech backpack design and manufacture	Building up a brand name
491	EndoArt (A)	Medical devices	Defining the right application to make the firm profitable
505	Google	Internet information search	Revising strategy and business model
5. Opportunities to Harvest the Value and Exit Strategies			
535	EndoArt (B)	Medical devices	Defining the right application for making the firm profitable
537	EndoArt Handout	Medical devices	The acquisition
541	Sentron (A)	Magnetic sensor electronics	Evaluating the future of the firm and potential exits
555	Sentron (B)	Magnetic sensor electronics	Evaluating exit decision
559	4M Technologies	Optical disk integrated manufacturing systems	Evaluating IPO options
579	Generics	Technological advisory services, incubator	Startup incubation; startup investment; hybrid business model
599	GigaTera	Manufacturing of optical network component	Evaluating continuation of company

Exhibit 1 (continued)

Page	Case Name (abbreviated)	Business Focus	Topics
6. Corporate Entrepreneurship: Rejuvenating Business			
619	Ducati (A)	Motorcycle manufacturer	Rebuilding and strategically repositioning brand Rebuilding and strategically repositioning brand Spurring internal innovative capability
635	Ducati (B)	Motorcycle manufacturer	
645	Logitech – Creating Culture	IT, computer accessories, and devices	
669	Logitech – Digital Pen	IT, computer accessories, and devices	Launching a new product on the market
697	mi adidas	Sporting goods	Developing and launching a new product internally
723	Tetra Recart	Carton solutions for food and liquid storage	Developing and launching a new product in a newly created venture
753	Nespresso	Lifestyle coffee concept	Building up a new market and creating a brand

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