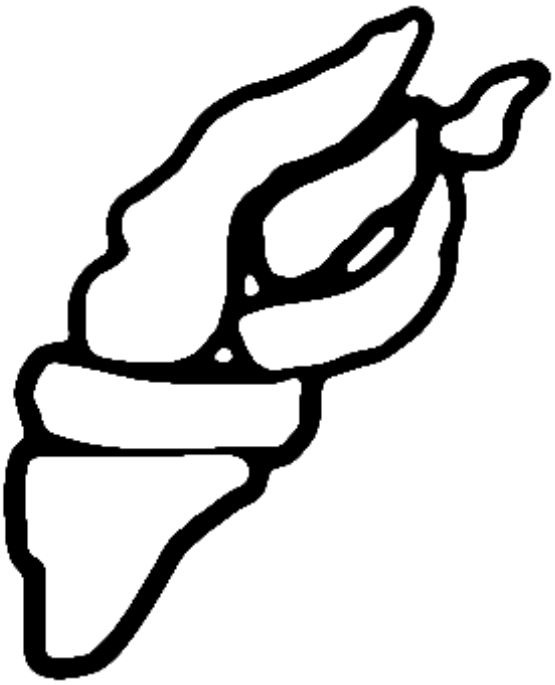
Managing Technology for Profit

A Small Business Guide

By Robert Muir

To date, this book has had a “private” distribution, and often to entrepreneurs trying to create technologies businesses whom I met along the way.

In “publishing” this electronic version, it is my wish that some of the knowledge and experience expressed within may shorten the learning curve for some of you embarking on the “start-up” adventure armed with vision, enthusiasm, and little capital.



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INTRODUCTION

Writing this book about how to help small businesses manage technology for profit is really a story of my professional life—a journey that often challenged the dreaded not-invented-here (NIH) system. What started out as an invitation to contribute business articles to several publications over 10 years ago, has now led to the creation of a simple guide for the average small business person and the would-be entrepreneur, to embark on their own journey to "Elysium."

In adopting a Greek mythological theme for each chapter, I have sought to introduce a little culture, a little interest, and a bridge to the universality of success whether in business or in life. For in the vernacular of this business, success often results in the "road-show" to angel investors, venture capitalist, and, ultimately, investment bankers for an initial public offering. To be successful on the road, one must tell an engaging story to the harshest of critics—the "money gods." Every such story, whether Greek mythology or real-life business truth, becomes an attempt to explain the little known in terms of every day reality.

So leave your desk behind and take this simple journey with me through the complex world of emerging business.

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Technology is the ultimate competitor. To compete, firms must accelerate response times, shorten product cycles and payback periods, and stimulate better informed and trained workers. Like the great Titan Atlas, who supported the world on his shoulders, Technology provides the means.

COMPETING IN THE '90s

IMPACT OF TECHNOLOGY

In the 1980s, markets were largely fenced off by geography, industry, and long-term supplier relationships. Then came the tidal wave of global competition that offered consumers greater choice and variety—and changed the rules of the game.

When the first wave hit, most companies believed price was the key competitive factor. They responded by cutting operating expenses and rationalizing operations and suppliers, moving offshore. America saw a decline in its manufacturing base. When the second wave hit, quality management and increased productivity became catch phrases. Employers struggled to create an innovative climate to get employees to buy in and man the lifeboats.

Employee creativity became a valued commodity. Some companies—3M, Xerox, Motorola, and Amoco—encouraged it and prospered. 3M is best known for its mandate that 25 percent of its annual sales must be from products not on the market five years ago. Meanwhile, the Big Three auto giants failed to recognize what the customer wanted—imports with the latest features and benefits—and would pay to get.

The third wave brought the need for faster response times to beat the competition. Changing customer needs demanded shorter product cycles, shorter payback periods, and better informed and trained workers. Technology became the ultimate competitor.

As the auto makers continued to rationalize their suppliers, small businesses sought to compete by "adding value" to their goods and services sold to the majors as well as by fencing off their niches.

Many companies found that technology could fence off market niches in global markets. Japan already knew this. For a total cash outlay of several billion dollars, post-war Japan acquired the cream of unprotected U.S. and European technology. Today, Japanese corporations practice technology management by filing worldwide patent applications. By protecting key technologies through patents, Japan can "cut-the-corners" when staking out markets.

MANAGING IN THE FACE OF RAPID CHANGE

Business is subject to change. Change is brought about by recession, and social and technical innovation. Change creates new markets and service opportunities, or reforms established businesses by shaking out the weakest.
We need to know the rules of the game to compete in such a business climate but there are no rules. Without rules, we are faced with a risky situation, but we are also faced with an opportunity. Preparing a suitable, competitive strategy in emerging industries requires that we address and cope with both uncertainty and risk. The ability to perceive coming trends and the flexibility to take advantage of them are the tools needed to play the game.

These tools are so essential that Fortune 500 businesses maintain strategic planning groups to estimate the impact of social and technical innovation on the business. Some companies seek to develop and introduce new products and define opportunities to supplement current business. Other companies seek insurance against bigger companies stealing the markets they are about to establish.

But there are two uncertainties that all companies must confront. First and foremost is technical uncertainty. What product configuration is the best? Which production technology is the most cost effective? Alternative products and technology routes and risks to current business must be evaluated.

The second is strategic uncertainty. What is the right distribution strategy for getting the product to market? What is an economical size for a manufacturing facility? How should the product be packaged, marketed, and serviced? What are suitable raw material sources? Small production volume and new products combine to produce high costs initially. Texas Instruments took a handsome gamble on electronic calculators, assuming they could significantly reduce the learning curve, and they priced their product to meet a future market. The result of such a steep learning curve is that the initial high R&D and manufacturing costs can decline at an exponential rate.

The emerging phase of a new industry is characterized by embryonic companies and spin-offs. This spin-off phenomenon is spawned by perceived rapid personal growth opportunities—equity participation and the chance to run our own show. Therein lies the trap for those who fail to plan: how to deal with the short window of opportunities and how to transform the first time buyer into the repeat customer.

To succeed in an emerging industry requires a company to be the hammer and not a nail. The overriding plan must be to shape the structure of the industry. By judiciously setting product specifications, marketing approach, and a consistent price strategy, we can establish a strong long-term position for our firm. Success depends on consistent product quality, keeping ahead of copy cats, and presenting a united front to suppliers, customers, regulators, and the financial community.

Suppliers and distributors must be courted early in the game. As the market and industry grows, suppliers may well become more responsive to special needs for payment terms, service, and material delivery. Consequently, distributors may be willing to advertise and promote our products.

In real estate, they say that the three primary factors for a successful sale or deal are location, location, location. In emerging industries, the primary strategic factor is timing. Pioneering or early entry involves high risk, but may involve otherwise low entry costs and large returns. Early entry is appropriate when a firm can enhance its reputation as a pioneer, when a steep learning curve exists and customer loyalty in first time buyers can be established and when a commitment from finance distribution channels and raw material suppliers can be secured.

Early entry is not appropriate when the product doesn't match the market segment, when initial market entry costs such as customer education and regulatory approvals are high, when formidable competition is on the horizon or when continuing technological developments can make early investment obsolete.

The trick is to time our financing needs to take advantage of investors' love affair with the industry.

This trick isn't always mastered. Prepare for the possibility of high initial costs and market barriers to erode exponentially. The market goes down faster than it rises. This factor requires that we be flexible enough to defend our turf and have enough money to continue to do so. Remember marketing is 90 percent of the game, so do not rely solely on a unique product or a proprietary technology to create business awareness.

Coping with competitors may be difficult, both emotionally and financially. The latecomer will try to fill the market niche we have created. He will take advantage of our product development mistakes and capitalize on the subsequent economies of scale. If we have prudently courted our financiers, suppliers, and distributors early on, we can concentrate our resources on building company strength and in developing the industry in total—a bigger pie can satisfy more appetites. It may even serve our purpose better to encourage competition through licensing our technology. Not only will this strategy recover valuable cash, but it may open up new markets, provide market intelligence, and create additional product lines.

Be prepared to embrace the opportunities that emerging industries can offer. History is littered with companies that paid the price for denying social and technological change. Uncertainty, once tamed, can lead to riches.

SEVEN DEADLY SINS OF TECHNOLOGY MISMANAGEMENT

Technology is one of the principal drivers of competition. Consider the impact of the transistor, computer, and fax machine on the manufacturing, industrial, and service sectors. When managed strategically, technology adds value to products and gives us an edge on our competitors. However the cost of mismanaging technology can be high.

Like religion's seven deadly sins that serve as warning signs along the road of life, there are also seven deadly sins of technology mismanagement: aimlessness, miserliness, unfaithfulness, vanity, arrogance, laziness and negligence. Ignoring these road signs can certainly have disastrous effects on the growth and survival of a business.

AIMLESSNESS: Quality management teaches us to communicate a shared vision to employees and customers—what business are we in? Regrettably, we often miss the more important questions of how are we going to get there and how will we know when we do.

We tend to write overall broad corporate business objectives independent of our technology needs and capabilities. Without identifying those needs and capabilities however, our broad objectives lack definition and become aimless.

Business strategy must define core business and technology needs, develop product-technology matrixes, identify how to obtain technology (inside or outside), and determine what resources are needed to acquire key technology. We must decide what strategic options (differentiation, marketing, licensing, joint ventures, consortia, spin-offs) technology can provide.

Core technology must respond to the strategy and the scope of our business operations. This technology must support product applications and markets. How can we get more mileage out of current product lines? Is it cheaper and less risky than developing new products? The need to develop new products can be overstressed and must be balanced against extending the life of the current product lines.

MISERLINESS: Budget for R&D is typically based on the previous years' performance. R&D and technology support funding is often the first to go in lean economic times. Funding is seldom adjusted to pursue new strategic opportunities or develop core technology. After earning the gold through technology, many businesses become miserly and hoard the riches. To stand out above the crowd, make a commitment to ensure that technology development is an integrated part of your overall business strategy.

When faced with a small or tight budget, set priorities to sustain key technology. Support what is most important and limit objectives for what is less important. Don't underestimate contributions from key employees in the process—nurture innovation.

UNFAITHFULNESS: Many businesses fail to commit consistently to developing technology. Any significant impact from this 'on again/off again' effort is diluted. Projects are aborted or delayed because the business is spending its time fire fighting.

Global competition requires us to run faster and smarter to stay ahead. There is wisdom and profit in concentrating our efforts in areas where we have staked out a competitive advantage. Commit to those core areas that are the foundation of our business irrespective of short-term profit projections.

VANITY: Most entrepreneurs want their contributions to stand out. Unfortunately, the desire to be creative often leads to an insular obsession at the expense of not thinking about the big picture. This leads to isolation from the rest of the business, minimal contribution, and a reduction to the classic fire-fighting role.

Share the vision for the business as a whole, encourage feedback from the business and technical sides of the house, and create channels to the outside to monitor the latest company and industry developments.

Look out for sacred cows. Maintaining old technology for technology's sake doesn't make good business sense. We can spend a lot of money maintaining technology that is no longer core to the business.

Challenge people. Encourage them to evaluate their skills continuously. Retrain them to deploy the latest technology. It's not enough to be different from the next guy, we also must offer something better to customers and employees alike in order to make a difference.

ARROGANCE: Most organizations, regardless of size, develop gatekeepers who stifle new developments and external linkages. Senior management can be particularly inhibiting when it comes to answering the key question: where will we get new technology to grow our business?

If the state of in-house technology has fallen behind the technology of our competitors, the business risk is critical. Internal core technology is rarely available instantaneously. There are always delays in getting people up-to-speed to incorporate technology into new or modified products.

Technological developments occur at such a rapid pace that the cost of keeping up is beyond the resources of most businesses. Successful business have finally begun to pursue strategic alliances. Alliances can help to acquire or exploit new developments. Alliance forms include licensing, industry consortia, supplier relationships, or joint R&D with private sector partners, universities, and government laboratories. We are learning to reduce the risk of new developments—while increasing our chances for success.

LAZINESS: Businesses that succeed in everything else often become lazy. They define and communicate mission, objective, and core technology, then fail to provide guidelines and policies for day-to-day decision making. Such policies empower employees to take action, be proactive, innovative, and garner the resources to make their respective contributions. Our management structures should be flattened out to empower innovation and build core project teams.

Take a careful look at intellectual properties policies (patents, know-how, copyrights, etc.). These are the life blood of the firm and are sensitive, proprietary, confidential, and of great potential commercial value. Intellectual property must be developed and protected to help our business reach strategic objectives. Protection is achieved through appropriate staff, consultant, vendor, and corporate agreements.

NEGLIGENCE: Firms often neglect to use and integrate all the tools of technology management necessary to grow the business. These tools include strategic planning, R&D, management information systems, manufacturing engineering, intellectual property management, sales and marketing, and employee training. Use all of these tools with appropriate weight and timing.

If we regularly examine our technology management strategy, we can avoid these seven deadly sins. Our strategic objectives will have a much better chance of succeeding. A little technology soul-searching can be very satisfying and profitable for our businesses.

2

Opportunities for New Business

- Protect It or Lose It—an Introduction to Patents and Intellectual Property
- How Intellectual Property Creates and Protects Markets
- Evaluating Technology for Opportunity

Apollo, the ancient world's most beloved of gods, was the god of truth and light and intellect. Just as Apollo gained mastery of the mythological world through intellect, so a key to the technology game in today's business world is a thorough understanding of the role and impact of intellectual property.

OPPORTUNITIES FOR NEW BUSINESS

PROTECT IT OR LOSE IT—AN INTRODUCTION TO PATENTS AND INTELLECTUAL PROPERTY

Just like "real property," intellectual property may be sold, transferred, acquired and even stolen by industrial spies.

Intellectual property can take a variety of forms such as patents, designs, industrial models, trademarks and copyrights, which are defined by legal statutes in virtually every country of the world. There are also valuable bodies of knowledge, such as trade secrets, which are not defined. These are referred to by the catch-all term "know-how."

How then do we protect our rights against others? How do we protect ourselves against those who came before us? How should we interact with our competitors and protect our turf while avoiding theirs? This may be more important to the small business person than actually filing a patent.

Patents are legal monopolies granted by sovereign governments for novel, useful, and unobvious inventions. In the United States, for example, the U.S. Patent Office grants these monopolies for 14 years for design and 20 years for utility inventions. The paragraphs (claims) at the end of the patent define the scope. Ask a patent lawyer what the claims in the patent cover. These claims stake out the protected turf. Find out what other products, services, and features can be manufactured, sold, or used without infringing a competitor's rights.

The patent statutes state that any person who invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent.

Patent searches are useful but not legally necessary to engage in business. However, sometimes an ounce of prevention is worth a dollar of cure. The newer on-line computerized databases all contain recently published U.S. patents and can be searched quickly and easily.

A "patent pending" mark on a product is not legally enforceable. It is also illegal to mark a product with a patent notice if the product is not within the scope of any patent claim.

Patents give us the right to *exclude* (note this key word) others from making, using, or selling items specified in our claims. Patents then can be used in suing infringers and in transferring, selling, or licensing the patent rights to others.

Patents can be sold, assigned, or licensed exclusively or nonexclusively for fixed periods up to the life of the patent and for specific areas and applications.

Make certain a patent will help the business before paying money for the rights. Be careful not to infringe your competitors' patents.

Copyrights cover written works. In the U.S., copyrights are granted by the U.S. Library of Congress for the life of the author plus 50 years or 75 years where the work is done for a corporation. Works are protected by applying a notice at the time of first publication and may be perfected by filing an application with the library.

Copyrights protect the expressed form of the work, not the idea. Protectable works include maps, music, paintings, computer programs, telephone books, and customer lists. A description of a machine can be copyrighted, but this would not prevent others from writing a different description or from making or using the machine.

Trade secrets are classified by lawyers as something that is not generally known in the trade or industry to which it applies, and which provides a competitive advantage. Trade secrets include formulae, patterns, devices or compilations of information. The Coca-Cola formula is one of the best examples of a trade secret.

If we take reasonable steps to prevent others from learning our trade secrets, we may be able to prevent others from using our trade secrets if they obtain them by illegal means. Of course if any other person finds the secret independently, there is no legal recourse.

Trademarks are words, names, symbols, slogans, devices, or any combination of the same, which are used to distinguish our products or services from those of others. Trademarks cannot be reserved in the U.S. as they can be in certain other countries. Trademarks are created from actual commercial use of the distinguishing features displayed on the product and are later registered with the patent office. Unlike a patent, registration of a trademark does not in itself establish any exclusive rights. It is simply a recognition by the U.S. government that we have the right to use the mark to distinguish our goods from those of others.

Trademarks are registered in various classes and remain in force for 20 years from the date of registration. They may be renewed for periods of 20 years unless canceled or surrendered.

Be prepared to define turf from within as well. "The easiest way to find out what a competitor is doing is to hire away an employee," wrote *Business Week.* Executive turnover from the company is a primary way of losing trade secrets and intellectual property rights. Most employees tend to stay in their industry, and their field of expertise, and either join a competitor or establish a competitive enterprise. Other

disclosures occur through published articles or research reports, or just a slip of the tongue.

Since employees are the pivotal point between confidentially and disclosure, build any internal security program around them. Consider written confidentiality agreements with all technical and management people. Tell them what is expected, what is considered secret, and what they may or may not do when they leave the company. Such agreements typically provide for the assignment to the company of any inventions, patents, etc., which are developed by an employee of the company. Conduct exit interviews to remind departing employees of their obligations and to unearth any flaws in the current policy.

Similarly, in business arrangements with consultants and customers, obtain a written understanding of how they will treat the company's intellectual property. Let consultants know what services are expected in return for what they are being paid. If they create an invention while designing a product for the company, the company should own it, and they should not use or disclose it to others. Trade secrets also can be lost through ordinary business relationships with suppliers and customers. For example, our company may request another company to design a special piece of equipment. Later, we find out that the manufacturer subsequently sold our new design to our competitors. We can protect ourselves with confidential disclosure agreements. Spell out each party's rights and duties and how the rights to any intellectual property that may be developed during the arrangement will be divided.

Always involve a lawyer when new circumstances arise. Never make assumptions about managing intellectual property. Ask what needs to be done to protect the company rights. Find out the good, and the bad, and do not be afraid to ask how much it will cost—the ugly.

Failure to protect our intellectual property turf and our associated technology can have drastic effects on our companies' profits and continued survival. Technology is a powerful force that inexorably drives the world towards a single converging commonality. Make sure that our companies are winners that seize technology to gain competitive advantage.

How to Use Intellectual Property to Create and Protect Markets

If we haven't begun to fully realize this trend, where do we start? Start at home with a policy statement on what the game plan is concerning rights invested in inventions and intellectual properties that exist now or may be developed by employees or by others in the future. Failure to plan ahead is, and continues to be, the most common failing of business. Write, publish, and implement a broad policy statement.

Sample Policy Statement: "Intellectual properties developed or owned by SmallBiz, Inc. are sensitive, proprietary, confidential, and of great potential commercial value. They will be developed and protected through appropriate staff, consultant, vendor, and corporate agreements to assist the corporation in reaching its strategic and operating objectives and in such a manner as will preserve the good reputation of SmallBiz in the marketplace."

To implement this policy, address ownership issues as they relate to employees, contractors, universities, and even the government.

Basic Approach: What's the common rule in dealing with any party regarding intellectual property? If we hire or assign someone to do something, work on a project, perform a task, or accomplish a stated objective and we pay for that work, then we own the result. If we pay someone to solve a problem, if that is part of the job, then the solution is ours.

In the case of an employee or consultant, this principle is called "hired to invent." Ownership is not affected by an issued patent with the employee as the inventor. If the company owns the invention or discovery, it owns the patent rights too.

Have an attorney draft up standard staff and consulting agreements. At a minimum, agreements should contain statements on requirements during the term of employment and for a brief period after:

Preserve as confidential all information pertaining to the business, projects, and products, the disclosure of which would be prejudicial to the business interests

Disclose all inventions or discoveries made solely or jointly with others relating to the business and assign right, title, and interest in such inventions

Obtain and enforce patents and execute patent applications

Disclose writings, art designs, prints, labels, and software

There is a lot of litigation in this area with much of it revolving around just what an employee or consultant was hired and paid to do. If an employee is not hired to invent, can an employer have rights in any such discoveries?

Shop-rights: There are common law principles that apply to this situation. When employees make inventions outside the scope of their employment (something they were not hired to do), but use the employer's resources or facilities in making the invention, that invention may be owned by the employees. Employee ownership, however, is subject to a "shop-right" to the employer. A shop-right means the employer has a non-exclusive right to use the invention without paying royalties. Conversely, when

employees make inventions working outside of their employment and without use of the employer's resources, then the invention may belong solely to the employee.

Going Outside: In using research and development (R&D) resources outside the company to develop new technology, processes, and products, keep in mind the basic principle that most countries use a "first-to-file" approach under their patent laws. The United States has recently changed its laws a from a "first-to-invent" requirement to a "first-to-file" to align its intellectual property laws with the majority of the rest of the world. Under the old law, this meant that the first person who made the invention could secure rights in the invention—but now this has become the person who first files a patent application. Exactly what do we mean by an invention?

Invention Defined: Every invention has two elements: *mental*—an idea conceived by the inventor, and *physical*—an application, or a reduction to practice, of that idea to achieve a practical result. Both elements are required, but it is not necessary to build a working model to meet the second element.

What is important, however, is that employees document and protect inventions through invention disclosures prior to engaging in a dialog with other parties. In practical terms, this establishes and protects "prior rights" in an invention and prevents possible claims of joint invention and ownership in the future. It also helps us better understand all of those exception clauses in standard secrecy agreements we've signed. This is particularly critical when working with universities, research institutes, and the government.

Research Institutes: In general, most research institutes are not-for-profit and were founded to contribute to national and regional scientific and economic development. Since their primary business is selling research services (work-for-hire), when pushed, they will include a standard clause in the engaging contract which basically says that "any and all patentable inventions pertaining to the scope of this project made by staff while performing the project work, as well as any resulting patent applications or patents, shall become the property of the client." They also will agree to confidentiality, but make this a requirement of the engaging contract as a matter of course.

In certain instances, institutes (and universities) may want to retain rights to any discoveries and inventions because of the experience and expertise the staff brings to the project. Unless the institute has already established prior rights in the discoveries, this is a little like the fox-in-the-chicken-coop argument since many institutes were established with public and foundation moneys and trusts. Stick to our common law rights—if it's our idea, and we pay, we own! Of course, if they approach us to develop their prior idea, we now have a negotiation.

Government Funds: A potentially sticky situation—working with government funds. In certain cases, such as joint university R&D projects and NIST's Manufacturing

Technology Centers, R&D funding is a cost sharing arrangement. The basic principle—any time the government invests funds in a project, the government gets shop-rights and "march-in" rights. March-in rights means the government has the right to commercialize any subsequent inventions if we fail to exploit the opportunity. I know of no case where the government has exercised such rights. The government has heretofore figured the invention must have little value if industry declines interest.

Freedom of Information: Of greater concern, however, is the potential disclosure of trade secrets (know-how) under government reporting and Freedom of Information requests.

The government is continuing to pass legislation in this key area. One of the more recent is the Cooperative Research And Development Act (CRADA), which provides for prenegotiated rights and greater confidentiality. Tread carefully and spend a little money on expert advice.

Government Contracts: Another way to develop and acquire ownership in technology is by performing R&D directly for the government. Details of such projects are published in the *Commerce Business Daily*. Inventions resulting from such work are treated differently if the organization performing the work is a small business, not-for-profit, or a university. In such cases, these organizations can elect title to such inventions thereby obtaining prior rights. Of course, the government still retains shop- and march-in rights.

To successfully compete in the '90s, the private sector must leverage the wealth and resources of the public sector—universities, government, and research institutes—to perform R&D essential to the survival of their businesses. A working knowledge of the management and commercial use of intellectual properties and their ability to create and protect market niches is essential.

EVALUATING TECHNOLOGY FOR OPPORTUNITY

Over the years, I have developed a number of surveys for screening technology-based business opportunities. In venture capital parlance, this is called *due diligence*.

Is the technology technically feasible (eliminate perpetual motion machines)?

Is the product a breakthrough or merely an improvement over the current product (this is called "cutting the corner" on technology)?

As an improvement, what significant advantage does it have over the current product? Is the advantage clearly discernible?

How much does cost to make?

Is there a sufficient market? In fact, does a market currently exist, or do we have to create one?

How developed is the technology?

How much money and time is required to produce a product we can sell?

How large is the window of opportunity?

How much protection?

Who own the rights to the technology? What rights—patents, know-how, show-how, and copyrights?

Who are the major players in the existing game?

Is this the only game in town?

In marketing, the key is to match the product or service to the market and the customer—this is called niche marketing. This matching process requires an understanding (and practicing) of the four P's taught in any introductory marketing class: *product*, *price*, *place*, and *promotion*.

Taking a lead from this elegant approach, I developed a simple three-P system for evaluating technology opportunities: *people*, *protection*, and *price*. This system is designed to be used by neophytes and uses basic people skills and common sense to build a decision bridge between high-powered science and enterprise.

People: With the advent of desktop publishing and the services of high-priced consultants, all high-tech proposals can look like winners. Remember that, first and foremost, business is a people science. To evaluate a proposal, always ask for a presentation by the inventor. Qualify the individual before looking at the technology!

Given the odds for a success in this game (about 100 to 1), we want a person who has the staying power to deal with the inevitable disappointments—we want enthusiasm, zeal, and commitment. Ask a few basic questions:

In one simple sentence, explain the nature of the high-tech opportunity. This question qualifies communication ability and shows whether the opportunity fits in a market.

What role does the presenter want in developing the technology? If the answer is "to pass the idea along for development and funding," stop right then. The successful

entrepreneur/inventor is very protective about his baby and never believes anyone else can do the job!

If we formed a start-up company, what position would the inventor want? Scientific inventors, in general, find it difficult to make it as a small business person. Particularly in biotech, most scientists develop a "petri dish" mentality. Because their research can be duplicated in a glass dish in one day, they are naturally suspicious of anyone and tend to be loners, not team players.

Who is going to buy the products developed from the technology? Why? Focus on an established end user, and for the most part, the consumer—a large buying market. Creating new markets becomes a sell in philosophy and a tough sell at that.

Protection: If the presenter passes the people-hurdle, then take a serious look at how to establish the business without the threat of serious competition. There's no future in being a trail blazer if Johnny-come-lately can capture the market.

In crass terms, technology-based businesses sell time and protection: time to leapfrog the competition and protection to establish an embryonic business beyond a competitor's reach. This most often is achieved through a legal monopoly—a patent. A U.S. patent gives its owner the right to exclude others from making, using, or selling a process, device, method, or product depending on its claims. It confers this right for 20 years.

The key question is how strong is the patent position? Is the technology the subject of patents or can patents be filed? When and where were these patents developed? Who paid for the R&D? Are the rights unencumbered—not pledged or assigned to another party?

In the R&D business, whoever pays for the R&D owns the resulting technology. Unless, of course, the R&D organization reserved these rights before starting the R&D. Then, too, there are some sticky questions on publicity and prior use of the technology before patenting—these can invalidate the patent, and with it, the business.

Technology can be classified into three simple groups: pioneer (7 to 10 years from market), partially developed (3 to 7 years), and fully developed. Most high-tech opportunities fall into the first two early stage categories and require some vision (and money) to capitalize on the opportunity. Most inventors are looking for "other people's money" to develop their idea. The lack of adequate financing for new ventures is often a criticism of banks. Remember, banks, by their charter, are first and always lenders not investors.

A strong patent portfolio can build protected markets and hence businesses. Zero in on just what market niche is covered by the opportunity. Novel opportunities are better than "me-too" improvements that merely cut the corner of a technology.

It is not necessary to own the patent to gain the necessary protection. We can buy protection in other ways: licensing, franchising, distributorships, or even outright acquisition of the intellectual property rights. Intellectual property rights come in a variety of forms including patents, copyrights, trademarks, and trade secrets (know-how and show-how).

If the opportunity still feels good, talk to the presenter's patent attorney and seek counsel from trusted people who can seriously evaluate the technical and business merits of the opportunity. The golden rule in the evaluation game is if we can't evaluate it adequately, it's not for us.

Price: This is the last hurdle. Pricing the fruits of the technology—the product—is critical. The selling price of the product must cover the cost of the R&D, production and distribution, plus a reasonable profit to the owner and subcontractors. The key to any distribution system is to provide enough gross margin to ensure that the final product can find its way along a multitier system—everyone has to get their cut. All too often, small businesses tend to undervalue high-tech products when they are first introduced. They fail to consider how much effort is needed to successfully propel the product through a sales force or distribution channel.

Proper pricing is necessary to generate the cash flow to support loans and debt equity to establish commercial enterprises. If the underpricing is severe, the product will be undervalued in the eyes of the marketplace, which will hamper, if not prevent, the growth of the product and thus the company. We can't win the fight against major competitors by cutting prices—this was why we want a protected business niche. On a high-tech product, a minimum 5-to-1 markup from production cost to selling price is almost essential.

Be slow and prudent when evaluating technology-based business opportunities. During the process (typically lasting around 18 months), the principals on both sides of the deal get to develop relationships and learn to trust each other. Approach technology opportunities as partnerships. Imagine the technology as a bride with a dowry of products and patents. Court the bride with money, manufacturing, management, marketing, and distribution. Aim for a long engagement and get married slowly.

3

Is There a Potential Market for the Technology?

- Technology Analysis: Key To Markets
- Snapshot Market Research...Secondary Research
- Information: A Strategic Commodity

Information, research, analysis - as quick and easy as a snapshot or as detailed and painstaking as an oil painting. It was only Odysseus' knowledge of her powers that saved him from the witchcraft of the beautiful enchantress Circe. Like Odysseus, making use of all relevant information can give us the knowledge to make the right decisions when enchanted by the promise of new markets.

IS THERE A POTENTIAL MARKET FOR THE TECHNOLOGY?

TECHNOLOGY ANALYSIS: KEY TO MARKET SUCCESS

Businesses are continually seeking the means to foster growth—by reinforcing or expanding their current market position, by entering promising new markets, or by developing new technologies into products. To evaluate these opportunities, firms increasingly use market analyses and feasibility studies.

Factors for Analysis. Regardless of differences in style, virtually all market analyses or feasibility studies have a common theme. Whether a firm is introducing a new technology, product, or service; improving a current product; investing in a new enterprise or technology; or entering a new market, the fundamental questions are essentially the same:

- What is the basic industry or market structure?
- What is the market demand or potential?
- Who are the major market participants?
- What is the competitive environment?
- What are the specific market entry requirements?
- Are there new technologies/products in development that will impact the opportunity?
- What is the pricing structure?
- Is the process/product/service financially feasible?

In practice, these fundamental questions undergo more specific scrutiny:

- *Overview of market structure* - current technology, production methods, industry production capacity, industry concentration, market integration, number of players, pricing and margin considerations, and market segmentation

- *Analysis of market potential* - current and prospective market environment, differentiated where appropriate by the relevant market scale, i.e., global, international, domestic, regional

- *Examination of major market participants* - production, distribution, consumption market chain

- *Competitive environment* - major competitors, major customers, respective strengths and weaknesses, core technologies, strategies for future market penetration

- *Market entry requirements* - need for specific technology, personnel, distribution methods, or certifications

- *Impact of new technologies and products on markets and competitive position* - will new technologies obsolete our technology or erode our market share?

- *Impact of pricing on market entry* - can the firm profitably fill a specific market need—at a price the market is willing to bear—and still keep competitors at bay?

A Question of Degree. A market and technology analysis or feasibility study can be phased incrementally to provide a series of logical and cost-effective checkpoints along the corporate decision-making path. For example, if after an overview of the market and current technology a firm decides that the market participants are too big or the market potential too limited, it can decide to curtail any further analysis. Should the process move on to consider financial feasibility—following positive signs in each stage—the likelihood of success is enhanced.

Technology, market, and feasibility studies provide crucial information in evaluating new opportunities.

Minimizing Loss, Maximizing Opportunity. Technology, market, and feasibility studies provide crucial information in evaluating new opportunities—particularly to any firm with scarce resources. Such studies are prerequisites for sound corporate planning. With these tools, corporate management can cost-effectively explore a number of options and product developments. This logical, incremental approach minimizes loss while maximizing potential, profitable opportunities.

SNAPSHOT MARKET RESEARCH

How can we get a better handle on new product opportunities that may arise from a technology? Often, a product seems to be a good fit for existing production, marketing, and distribution, but it is perhaps a little more technical than we're comfortable with. Worse, there's a limited window of opportunity and the company has meager funds for expensive market research.

Opportunities to expand production, acquire a plant, engage in a new product venture, or invest in a new technology may warrant background research. There are common reasons for evaluating both a technology and the outlook for associated profit:

- Explore the potential of new products or unfamiliar markets
- Supply technical input relating to venture financing or joint ventures
- Provide due diligence in structuring an investment
- Define areas of negotiation in acquiring rights to proprietary ideas
- Evaluate unexpected actions by competitors or regulatory agencies

These reasons bring us to the case for snapshot market research. This approach relies upon assembling all the information that can be developed in 4 or 5 days of technical inquiry. A significant amount of pertinent information can be collected via on-line databases, telephone interviews, and intensive review of published material. The key element of the process is quick interpretation of the raw information into a balanced appraisal of opportunities and prospects:

- Are claims for the performance of an electromagnetic bone-growth stimulator technically sound? Will the patent offer protection? Will enough physicians accept this new device to ensure a sizable market share?

- Can a vegetable product grown in Samoa be imported as a crude vegetable substance, or must it be labeled as a natural drug of vegetable origin? Which regulations apply—those of the Department of Agriculture, Food and Drug Administration, or U.S. Customs?

- Is there a growing market for equipment to process and analyze Landsat digital images? Does the hue-brightness-saturation approach possess technological advantages over the red-green-blue system?

- Does an inventor's process for producing a low cost oil-coal slurry fuel appear technically and economically sound?

- Does a patented technique for preventing drilling mud leakage in oil well drilling have widespread and general application, or only local and limited utility?

- What products are currently available in the home/personal protective alarm market, what marketing strategies have been tried, and which appear most successful?
- How many commercial cooling towers are in service in metropolitan areas and where are most towers located? What is the size and structure of the industry providing water treatment services for cooling towers?

Most people think that obtaining this technical and market intelligence is prohibitively expensive and time consuming. Sufficient information can be gathered in 1 to 2 weeks

with a modest budget of $1,000 to $4,000—a manageable sum for many small businesses.

What data can we expect from snapshot market research?

- *Competitors* - business volume, customers, product characteristics, plant capacity, and production backlog
- *Customers* - types and mix, products used including quantity and prices, ordering backlog, and future needs
- *End consumers* - product preferences
- *Market* - current size forecasts of use and assessment of outlook

In reaching short-term decisions on many projects, a quick-response assessment is essential. If the project proves feasible, a more comprehensive study probably is needed. The initial analysis serves as the basis for follow-up work that could require several months to complete. While the quick-response assessment is a valuable tool for management decisions, it should not be substituted for full-blown market research that is required before committing any resources. In many cases, we just want to know whether or not to play the game.

INFORMATION: A STRATEGIC COMMODITY

On-line searching is one of the simplest and quickest ways to gather information. Time and knowledge are the ultimate denominators for competing in the 1990s. Before we can have knowledge, we must have information.

Most corporate fiascoes occur because companies let faulty assumptions and misinformation direct their decisions. For decades, Xerox was the premier company in the copier market, holding a 90+ percent market share. When Japan entered the market with less expensive copiers, Xerox decided this was no threat. Xerox figured cheaper copiers would not match Xerox quality. When Japan introduced smaller copiers, Xerox assumed smaller copiers could not handle large volume. Before Xerox accepted that Japan's copiers were as reliable and as productive, their market share dropped 20 points.

The Big Three automobile manufacturers also made decisions based on poor or misinterpreted data. These companies had very successful lineups of large and powerful products. An unprecedented increase in petroleum prices—and the availability of small, high-quality cars—caused the marketplace to change. The auto makers, even in the face of this data, insisted that consumer preferences had not changed and that buyers would return when petroleum prices dropped. They lost 50 percent of their market share before they realized that consumer preferences had indeed changed. They have since recovered—but most small businesses don't have the resources to rescue themselves.

Time and knowledge are the ultimate denominators for competing in the 1990s.

Once again, technology has made time and knowledge the ultimate competitive denominators. The ability to access and process information on competitive intelligence, new product information, R&D, market trends, environmental, and regulatory assessments is critical to a company's future. Companies that survive and thrive in our global marketplace have to be information-based.

Information-based companies are more responsive to customer needs and to changes in volatile business environments, which make them more effective competitors. These companies introduce new products and react to market changes much faster and more comprehensively than traditional companies. Companies are finding out the hard way that failure to respond quickly to the needs of the marketplace can be devastating.

Failure to collect or accurately assess information spells disaster. To stay ahead and, more importantly, to get ahead, companies must use the information effectively. Though business intelligence activities have increased significantly in the U.S. over the past 5 years, Japan and Sweden have become the world leaders in business information gathering and analysis. According to an article in *The Journal of Business Strategy*, Japan views business information as a commodity offering competitive advantages in the global marketplace. Business information gathering and analysis is an integral part of Japan's manufacturing and industrial system. Sweden's comprehensive business intelligence activities include well-developed corporate programs, for example, SAS and Volvo, which are supported by global collection networks set up by Sweden's international banks and by government embassies worldwide.

Companies who use information to develop and analyze business scenarios, who benchmark to manage—and control—their business activities in risk—adverse environments, are forging ahead of their competitors. These information-based scenarios are used strategically to develop business studies, rank alternatives, manage risk, leverage critical resources, and sustain competitive advantage.

If we strategically use information, we can improve bottom-line performance both for the short and the long haul. This is a fundamental and far-reaching improvement over short-term gains such as reducing expenses or temporarily increasing capacity. "Plan, do, see" is now "information, knowledge, strategy, creation."

4

Can We Make a Business with This Technology?

- Mousetrap Marketing
- Competitive Intelligence—No Cloak and Dagger Required
- Understanding the Marketing Game
- Small Companies Survive By Understanding Market Niches
- Common-Sense Market Planning

Beloved by Apollo, who gave her the power to foretell the future, Cassandra the Prophetess was destined to know the truth. Without such gifts of prophecy, we have no similar guarantees, but our secondary research is complete and things look pretty good. Now it is time for the primary research to dot the i's and cross the t's and confirm whether to invest our time and money in making this technology into a business.

CAN WE MAKE A BUSINESS WITH THIS TECHNOLOGY?

MOUSETRAP MARKETING

The proverbial mousetrap can be used as a prime metaphor to explain marketing in simple terms and to recap where we are in the assessment process.

Research the market thoroughly to identify how many competitors are out there and how strong they are in the market.

Building the better mousetrap is guaranteed to ensure that the world beats a path to the door, right? The features and benefits of the better mousetrap are supposed to create a demand in the market and a suitable distribution for the product. But what if there are no mice in the area, the competition is cheaper and more effective, the mousetrap needs a special bait that is unavailable, or the mousetrap needs a seal of approval?

Mice Not Included. All too often, innovations are developed by people with a technical bent and little previous business experience. Their innovations result in products that satisfy their own particular needs. It often fails to occur to them that their needs may be far different from the needs of the industry, the market, and the consumer at large.

The innovation process often needs to be reversed. Rather than developing a product first, our interest and welfare would be better served if we identified whether or not we have a problem to solve and what the nature and extent of that problem is. This approach would establish if indeed there are any mice in the area and whether the development of our mousetrap might be successful, for example:

- The mouse population in our region is increasing. Is the end-user likely to get increased usage from our trap over time, building volume?
- The demand for our trap is seasonal or cyclical. Can the purchase of our trap be postponed or delayed?
- Our trap has to be multifunctional to cover different sizes of mice and different preferences of the end-user.

Stalking The Competition. Imitation is the sincerest form of flattery. In most cases, we are Johnny-come-latelys to the market with new products. Research the market thoroughly to identify how many competitors are out there and how strong they are in the market before committing to expensive R&D.

If BigCat, Inc., is firmly entrenched in the market, consider bowing out gracefully rather than risking a tooth and claw fight to unseat the locked-in competition. Of course, if the market is large enough, we might consider the Snapple "third largest" leverage positioning approach if our trap has cross-market from rural-to-urban rodents appeal. Even if we win a few battles, the hope of any reasonable market share is probably minimal. Study how BigCat is set up to distribute its product to determine whether we can tap into any new or hidden distribution channels. We should ask ourselves whether we can build enough margin into our trap to encourage sufficient market penetration in the early stages while providing a reasonable payback to cover R&D and overhead costs.

We also should ask ourselves if we can obtain any special market protection from patents and trade secrets. Is the design a "me-too" or a breakthrough? Will our customers discern the value of our trap in solving the mouse problem in their area?

Baiting The Trap. Perhaps we have developed a computer-controlled trap to catch mice. It seems that the mouse walks up to a high resolution video screen that randomly flashes pictures of Swiss cheese or another mouse before it zaps him. To further complicate matters, the computer and video screen system needs lots of expensive 4-megabyte RAM chips that are only available from Japan. Efforts to secure additional sourcing of the chips from Korea and Taiwan have been unsuccessful. Worse still, the current political administration is proposing trade restrictions. The lesson—design innovations with readily available components.

Eeking (!) Out An Endorsement. It seems that the majority of our customers are people who have serious problems when confronted by mice. It is obvious that our product is cheaper, more efficient, elegant, aesthetic, without disposal problems, but our customer wants to know if any organizations have endorsed our mousetrap. The customer is looking for the equivalent of a Good Housekeeping Seal of Approval. Changing anyone's philosophy is always a tough sell since those who would work in the future are viewed with suspicion by their peers in the present. Be prepared for the long haul to get the product to the marketplace. Consider taking on a paid proponent for the product in its formative stages when philosophy becomes a business partner.

Proceed with caution when finding mice and the niche that can justify the development of the better mousetrap. Once we have found our niche, we must prepare to defend it against all intruders.

COMPETITIVE INTELLIGENCE—NO CLOAK OR DAGGER REQUIRED

Traditionally, most business plans are long on product narrative and short on market research. Small businesses often use the crutch of meager financial resources to justify why they cannot determine the true nature of the competition's plans, strategies, and capabilities.

Gathering most information requires no covert methods.

The mid-1990s Iran-Contra hearings, with their emphasis on data collection, taught important lessons to every small business person. The hearings reinforced what the CIA already knew—that 98 percent of all information is available in the public domain. We just have to know where to find it. The Internet may simplify such access.

Gathering competitive intelligence falls into three simple categories: that which costs nothing or next to nothing (Internet or old-fashioned library); that which entails only a modest expenditure (fee-based on-line databases); and that which cannot be obtained at any price (proprietary information), even by large companies.

Let's define our terminology first. Competitive intelligence, as used here, refers to one aspect only of the overall market research picture. It does not include studies on consumer preferences, product improvement, dealer effectiveness, and supplier attitudes; nor long-range economics, test marketing, sales analysis, and advertising pretests—all of which normally require outside help. Rather, it refers to what a company can learn about its competitors that it would like to know but doesn't know now, given limited resources.

As a first approach to gathering competitive intelligence, make use of data sources in the field. Field data can be collected from sales and engineering staff, suppliers and distributors, advertising agencies, security analysts, and new hires. It also can be collected at professional and trade meetings and through reverse engineering. There are typical inexpensive field studies that a small business can afford:

- Buy a competitor's product, take it apart piece by piece, and evaluate it. This is completely legal and ethical.
- Require field sales people to provide feedback on the activities of customers, distributors, and competitors.
- Assign executive staff to spend several days each year talking directly with customers. These end-user contacts should provide valuable information about the competition. It's also a good idea to include personnel and administrative people in this activity—to remind them that the company operates in a competitive arena.
- Meet with sales people, at least quarterly, for a two-way debriefing and reporting session to assess competitor activities.
- Plug up leaks in the company through which sensitive information might trickle. Make certain, for example, that a competitor cannot obtain a price list from the printer or distributor. Be aware at trade association meetings—a loose tongue can inadvertently pass on valuable information to competitors. Don't tip off a competitor that a new product is being introduced by holding an impromptu sales meeting.

- Stay aware of the inroads of overseas companies into the market. Check with the Department of Commerce, international trade representative, or Chamber of Commerce for new players in the territory.
- Ensure that there are sufficient (and correct) market research data to support sales projections for the intended product line when putting together next year's business plan.

Painting the bigger market picture requires combining field data with information gleaned from published data sources. Published data can be obtained from newspaper and magazine articles, want ads, government documents and publications, management speeches, filings with government and regulatory agencies, analyst reports, patents, and court records. Gathering this information requires no covert methods.

For publicly listed companies and the larger small businesses, competitive data in the financial, employee, product, R&D, and legal areas can be readily compiled. Typical financial information includes total sales data, profit/loss and balance statements, capital and leasing expenditures, advertising budgets, labor contracts, liens, credit arrangements, and acquisitions and divestitures. Employee information includes biographies on current key people, changes in staffing, total and divisional employees, compensation practices, and R&D assignments. New product (and maturing product) information includes product announcements, new plants or expansions, plant closings, and patent filings. Legal information encompasses lawsuits, labor contract expiration dates and strikes, stockholder actions, antitrust actions, and compliance investigations.

There are small market research firms whose services are reasonably priced and who compete well with the larger market research firms. These firms use clipping services, competitor interviews, and on-line computer database information to provide published data—both general and product oriented—for a modest fee. For an additional fee, they will catalog and analyze the data and brief companies on various market scenarios and competitive situations.

How can this competitive information be used effectively? Generically speaking, this information should be used to direct sales and marketing efforts, and at the same time to avoid any legal problems. Potential applications include changing marketing strategies, developing new applications, evaluating pricing strategy, weighing customer responses, reevaluating advertising programs, changing distributors or packaging, adjusting trade discounts, and preventing patent infringements and other legal problems.

Some competitive information cannot be gathered at any price, even by Fortune 500 companies. Cost and price data, for example, cannot be exchanged with a competitor or a trade association without risking legal action under antitrust legislation. Companies cannot engage in industrial espionage to obtain competitors' secret formulae, long-range plans, new products still on the drawing board, new operating techniques, and

information on product capacity and costs without risking litigation and punitive penalties.

The price of admission into the competitive information game is not as high as we once thought. By judiciously staying abreast of day-to-day company activities, and with a little inside and outside help, we may steal a play from our competitors and protect our markets and our bottom line.

UNDERSTANDING THE MARKETING GAME

Ninety percent of getting technology to market is—marketing. The essence of marketing genius is the ability to explain any concept in simple lay terms. Current management books expounding the latest Druckeronian management and marketing theories appear to be folly. These sophisticated marketing techniques often overlook the simple focal point of any successful marketing strategy—attention to customers.

First, we need to understand the salient difference between selling and marketing. Simply stated, marketing is creating a desire for the product; selling is satisfying that desire.

Marketing, then, is creating an awareness of the product in customers who will pay for it and, hopefully, return to purchase more. The key to effective marketing is to match the product or service to the market and the customer; this is called niche marketing. This matching process requires us to understand (and practice) the four Ps taught in any introductory marketing class in college: *product*, *price*, *place*, and *promotion*.

Product. What a business really sells to the customer is not a product or service, but a benefit. Benefits can be related to time, energy savings, profit, convenience, skill, or price. Often, small business people complain long and loud that they can't compete with volume discounters, large selections, and mass merchandisers. Small businesses cannot hope to compete on price alone, an easy trap in which to fall. If we want to be successful, we stress service and benefits over price.

Price. What we charge for our product or service must be directly related to benefits. The customer who derives more benefit from the product or service values what we are selling more. Segregating customers by value-added criteria helps us increase our profit margin and add more profit to the bottom line. Customers who are sold on the benefits of our product and its value are ideal candidates for rapid payment and repeat business. The key to finding these valued customers is to identify a niche in the marketplace that no one else is presently satisfying or, at best, is being served poorly.

View products through the eyes of the customer.

Do not price solely on production cost or competition. Our goal must be to price to the perceived value that we are providing to customers while staying within the constraints

of covering costs and meeting the pricing of comparable competition. Competitive advantages in the design of services or products must provide the leading edge.

View products through the eyes of the customer. We should let our customers determine what our services or products can do for them. We must stay flexible in our pricing.

Place. Paradoxically, the right place for most businesses is not necessarily where the customer is. For a retailer, a high-traffic location is fundamental to success, whereas, other businesses may be better off locating closer to their suppliers than to their customers. Service firms, depending on their nature, may be either close to or far away from their customers.

Matching location to the nature of the business and its customers is a crucial business decision for most firms. But if our location doesn't make any significant difference to our customers or to suppliers, we can locate to suit our personal preferences and budget. Remember, to stretch cash flow, choose pocketbook over pride and select the most inexpensive office space.

Promotion. Creating an awareness of the product or service is known as promotion. Promotion can range from an extravagant multimedia presentation to sending out a highly selective direct mailing to a few well-chosen potential accounts. Monitoring our success rate may encourage us to follow up with a broader and more expensive mailing to the total market.

For the start-up company, the large-scale promotion approach may be wasteful. The direct mail approach would normally be far more effective. Promotion need not be expensive so long as it is consistent and dedicated.

For the service firm in the early stages of introducing the company or a new product, personal contacts and good old-fashioned door knocking can be most effective. In retailing, a carefully chosen combination of paid advertising in the communities served, handouts, and free publicity usually return the largest dividends. For a manufacturer, carefully prepared product literature and competent sales calls (and follow-ups) have the greatest impact.

There are a few traps to watch out for, however. Be aware of minor details such as seasonal buying habits, when to place a phone listing, and the impact of carefully placed new product or service articles in trade publications. It also is important to watch (and learn) what the competition does. What features do they stress in competing or similar products? What sales pitch is used? Most products are sold using one or more of the three basic stimuli: fear ("protect your home from . . ."), greed ("never work again by owning your own business . . ."), and lust ("sex sells . . .").

Ninety percent of getting technology to market is—marketing.

Remember also that an industry's trade or retailing association can identify valuable trend projections and regulatory factors that could affect the business. In summary, we need to learn as much as we can about our market and our competition. First, identify the customer, then place meager resources wisely to promote the business.

If we reduce our basic marketing strategy to essentially watching our Ps and Qs (read inquiries), we'll be well on our way to winning the marketing game.

SMALL COMPANIES SURVIVE BY UNDERSTANDING MARKET NICHES

Small business traditionally competes in fragmented niche markets. These fragmented industries are characterized by a large number of small-sized companies, often privately held, and an absence of market leaders driving the industry. Small businesses looking to improve—or protect—their competitive position must first understand how and why their own industries are fragmented. This insight is critical in assessing whether larger firms are likely to enter the industries, for devising a cohesive market strategy, and for competing within the industry. Industries become fragmented for a variety of political, economic, and historical reasons.

Low entry barriers encourage firms to enter an industry. Often, with little capital investment, resources, or experience, the entrepreneur can leave the womb of a previous employer and strike out alone. The fledgling entrepreneur is attracted by a simple manufacturing process or by a process that requires special knowledge, such as plastic molding and custom products. Recently, high labor costs have driven most manufacturing offshore. Thus, today's entrepreneur is more likely to be attracted to a simple distribution or merchandising operation.

High transportation and distribution costs can open up another opportunity for small business. Such costs usually determine the geographic radius a firm can serve, limiting its size to an efficient level. Chemicals, cement, and milk products fall into this category.

High inventory costs and fluctuating business cycles can work to the advantage of small-scale manufacturing or distribution firms. Often they can take advantage of their size—be they buyer or supplier—when no size advantage exists for the larger firm. The larger firm, by intentionally buying from several suppliers to minimize the risks associated with a sole source, can actually encourage additional firms to enter the supply market. Existing suppliers cannot offer sufficient sales discounts to drive out this new competition. The result is that the small supplier enjoys an enlarged market and the small buyer cuts inventory costs because competition for the big firm's business keeps the prices low.

Lack of economies of scale can also cause fragmentation. For larger firms, continual changes in style or product design limit their windows of opportunity. It is simply not

worthwhile to tool up production lines. Clothing and computer-related products are good examples of businesses with ever-changing demands.

Custom product lines can require close contact with end users who tend to favor higher priced, low-volume products. This umbrella allows the specialty small business not only to survive but to prosper. A closely related situation occurs when suppliers develop a highly specific market usage for their particular product or service.

Local control, local image, and local contact can be plus factors for the small firm. Here, the owner or manager personally maintains close supervision of employees and close contact with customers. Building supplies or restaurant services are examples where the local firm has the advantage.

Low overhead can also be a crucial success factor for the small firm, which is normally unencumbered by pension plans and other corporate perks.

Government regulations also fragment industries. Local regulations drive industries such as real estate and liquor retailing, and personal services such as dry cleaning and eye glasses. Federal regulations also impact banking and professional services.

To cope with fragmentation in the industry, strategic posturing is crucial if our firm is to become more successful. While each industry may have its own rules, there are a number of approaches a small business can take. The common thread of each approach is to match either the product or service to the changing needs of the industry or to neutralize the potential competitive advantages other firms might offer to lure customers away.

The common thread is to match the product or service to the changing needs of the industry.

The first approach—"if you can't beat 'em, join 'em"—is decentralization. Since fragmented industries are characterized by personal service, close control, and local contact, decentralize activities into a number of autonomous branches rather than increasing the scale at one (or a few) locations. Of course, this approach must be supported by a tightly managed central control and balanced by a performance-oriented compensation program for the branch managers.

What can we do to compete if our products or services are otherwise identical to the competitors? If we can't differentiate, then we add "value" to the product or service. Perhaps we can provide a little more service at the point of sale, perform a final assembly step (such as cut to size), or supply additional component assemblies (kits). In short, by going the extra mile, we create a differentiation among products, which can lead to higher product margins. The concept of value-added can be enhanced by manufacturers who integrate upwards into distribution or direct retailing.

When business depends on numerous items in the product line, one effective strategy is to specialize by product types or industry segments. As we attract buyers through our specialty, we can pull through additional sales of other products or services— "one-stop shopping."

Other strategies include specialization by customer type and order type. By appealing to particular customers, perhaps those smaller volume purchasers with the least bargaining power, we can carve out a niche market. Likewise, by providing convenience over price and "get it today" crisis items, we can build our reputation on customer service.

Another effective strategy is to focus on a geographic area. This allows us to economize sales force costs, plan more efficient local advertising, and establish a single distribution outlet. The latest shakeout in the food store chains shows this strategy working despite the presence of national chains.

Food stores call to mind another strategy—the bare bones/no frills/pack your own groceries approach. Given the low profit margins often associated with fragmented industries, a low overhead approach using less skilled employees, tight cost controls, and attention to detail can work. The company will be in a good position to compete on price and still make a reasonable bottom line.

Although fragmented industries are characterized by low market shares, consider "selective backward integration." This approach lowers costs and puts pressure on competitors who may not be in a position to affect such cuts. How do we accomplish this? We can create economies of scale by setting up a manufacturing or assembly operation, by acquisition and consolidation of less profitable firms, or by licensing new technologies.

Of course, backward integration schemes are based on fundamental business economics that may not apply to the industry. If our firm lacks resources or essential skills, or worse, is complacent, then we better take care not to become a shakeout victim ourselves. We better keep our ear to the ground to hear the rumble of the competition as it approaches and change percolates through the industry.

Whatever the industry, whatever the business, make an annual audit of your company and your market share. Ask customers, suppliers, competitors, and employees what is taking place in the industry. Will the industry continue to be fragmented in the future? Will some innovation or large company change the rules of the game? Can we continue on our current path, or will change be thrust upon us?

COMMON-SENSE MARKET PLANNING

How can a small business identify new market opportunities? Businesses operate in a competitive market and grow by establishing a market niche or establishing new sales outlets. They are concerned about how to sustain continuing growth particularly when recession clouds rumble on the horizon. They understand the essential difference between marketing—creating a desire for their product or service—and selling—satisfying that desire. They also understand that marketing includes point of sale activities and a communications program: advertising, promotion, and publicity. However, aside from trade association support, they do not understand how to obtain basic market research information from their customers and suppliers.

Experience teaches us that the only certainty in business is change.

Market research information is essential to understanding and keeping up with the market's needs and wants. Highly competitive markets are characterized by rapid obsolescence of products and services. Experience soon teaches most small business people that the only certainty in business is change—tomorrow's market will be significantly different from today's market. Just as important is the company's communications program. If it is not based on a logical and reasonable marketing plan, then the company is probably operating on "remote"—a passive reactive mode. The company is probably playing follow-the-leader and letting competitors call the shots and effectively dominate the market.

Many times, lack of sales is not the result of poor sales techniques, but more likely by failure to offer a product or service that meets the market's requirements. These snares can be avoided if we think before we act. Forget about the daily fires that have to be put out and put aside some time to plan.

The good news is that market research and planning need not be time consuming and expensive. For the most part, market research is a common-sense way of understanding customers and potential customers and where the company best fits into the marketplace. Small business owners and managers working with their sales organizations and customers should be able to perform most of their own marketing research.

The first step is to run a simple survey with the customers. Call them up or include a little note with their order. Ask them what they like about the business and what they want in service and products. It's cheap, immediately effective, and for the most part, always overlooked by management.

Once we've exhausted our customer resource, we can check out a number of other free information sources: public libraries, chambers of commerce and community affairs, state agencies, the Small Business Administration (SBA), the U.S. Department of Commerce, local colleges and universities, and trade associations. The use of outside professional experts and agencies can also be helpful, but not as a replacement for our own market research.

Whether we choose one or all of these avenues matters not, as long as we clearly understand our marketplace. Developing that understanding is a matter of asking and accurately answering a series of common sense questions. Who are our current and potential customers? What determines their needs? How have their needs changed recently? What will be their needs in the next 6, 12, 24 months? How much do they buy? How often do they buy? What is a reasonable price range for our products?

Armed with this information, we can then answer the three key questions that every organization, regardless of size, must ask. What products and services should we keep? What new products and services should we add or eliminate?

Follow this with the bottom line questions to complete the other half of the marketing puzzle concept, the company's capability to compete profitably. Which of the needs of our customers and potential customers can our company afford to meet? Where do our customers look for product information? For which of our customer's needs are our sales and distribution methods well-suited and cost-effective? Who are our direct competitors and how do they operate? What is the rate of change in the main technologies that underlie our product and services?

With a little more patience, this information should help us answer the three final marketing questions we need to ensure profitability. What market niches can we potentially dominate? What type of sales program will be most effective and within our organization's ability? What type of communications program will be required to ensure we create sufficient awareness of our products or services so that we can maximize the effectiveness of our sales efforts?

And now the bad news about some common problems to watch out for when planning. Marketing programs that fail tend to have a common set of problems: a lack of consistency and commitment; spreading too few dollars over too ambitious a program; great expectations of an immediate profit payback from a short-term marketing investment; and an inappropriate marketing plan, particularly profit goals. Profit goals are part and parcel of a company's overall plan because profits are the expectation of the firm's total performance.

Marketing plans should focus on goals such as total unit sales, number of customers, orders per customer, first-time orders, repeat orders, system sales, and market share or penetration, if appropriate.

Write it down and follow it. Marketing plans must be written down if only to serve as a method for evaluating actual results as compared with planned goals. This doesn't need to be a 50-page document in a $25 binder. Marketing plans should be dog-eared and continuously updated to reflect the ever-changing reality of the marketplace.

Using common sense and the multiple resources available to us will keep our businesses up to date on the market's demands. We must write our plan down on paper and follow it.

5

What Form of Business?

- What Are Our Options?
- The Formal Business Plan
- Everything has its Price if We Can Price it Right

The Oracle at Delphi, which was held to be the center of the ancient world, was the focus of all anxious seekers of truth. We're far from her influence today, but knowing our opportunities, planning for them, and pricing them right may give us the stimulus we need to make our business grow and prosper.

WHAT FORM OF BUSINESS?

WHAT ARE MY OPTIONS?

This is a typical scenario confronting a small business. SmallBiz, Inc., has successfully operated for several years and believes it has a technology edge over its competitors.

Products from the technology have been sold into specific markets, but SmallBiz believes its underlying technology has wider market applications.

Business failure is most often caused by lack of effective planning.

SmallBiz wants to either cash-in or grow its business. It is unsure of what steps to take in deciding whether to sell the company, expand it with outside funding, form alliances, or license the technology to others. The question—how to protect earning potential while maximizing upside income potential and, at the same time, minimize risk?

The answer depends on the combined personal and business goals of the company shareholders and its resources. Always start with the end in mind!

Review the annual business plan (we do have one, right?), which lists the company's mission, core strengths, and resources. Most small business pundits suggest that the major reason for business failure is a combination of lack of capital and poor management. Experience, however, suggests that the single most important cause of business failure is the lack of effective planning. Most often, running out of money is the inevitable result of poor planning, and is certainly the hallmark of poor management.

Management Is An Art. Just as doctors or lawyers must practice their profession, the small business owner must practice the art of management. Most small business owners either inherit their business or have struck out on their own as entrepreneurs, leaving the safety and support of the corporate womb. As entrepreneurs, they are skilled in their own field, craft, or service. As inheritors, there is a tendency toward inbred and stale ideas. Both types of small business owners have one thing in common—they have not been trained as managers and, therefore, have not been trained to plan.

What is planning? Planning is any systematic way of thinking about the business: about its performance and its current and future needs. Planning is what provides the business owner with reliable information to make critical decisions that will maximize the chance of correct decision making. I am a great believer in success through planning.

In large companies, corporate goals, capital, and resources are devoted to protecting market share in major business areas while neglecting opportunities in specialty business units. Safety in numbers is the rationale.

Contrary to popular opinion, the small company does enjoy advantages over the major company. In the small company, planning cannot and should not produce an over abundance of paperwork. The real strength of the small company is its ability to function as a guerrilla unit: to move quickly with strong, personal, and verbal working relationships among its employees. The planning process can be based upon a series of well-prepared meetings including all the key people. Contrast this with the remote process that the major company must use.

Use this strength to get people involved. Hold a series of meetings with employees and include some of their contributions in the final plan. This will ensure that they have a clear understanding of company goals and spur a commitment from them to achieve those goals. If this becomes a lip service exercise, we will lose our employees' respect. We will benefit from the recommendations of the only people in the world (besides our families) who have a major stake in the future success of our business—our employees.

Remember, the process of planning is not the same as a written, formal business plan. Every successful manager is an effective planner. However, not all of them put their actual plan in writing. Many business owners are reluctant to document their thinking. The traditional excuse is a lack of time. The real reasons are that they lack confidence in their abilities, they are afraid that something in writing will limit their ability to change their minds, or they wish to micromanage their staff.

Plans Are Not Locked In Concrete. Drucker, a well-read business author, wrote that the power of a decision is inversely proportional to the amount of money that it takes to change it. Plans must be updated regularly to reflect changing business circumstances. Plans must not be so detailed that they quickly go out of date. Rather, plans should address the critical strategic problems that face the business. Typically, these problems change relatively slowly.

When plans focus on strategic issues, they will determine the success or failure of the business. Scenarios for an effective course of action must be developed to defend the business against competitors, take advantage of growth opportunities, and improve weaknesses. An effective plan becomes a blueprint with which to run the business, including the obtaining of financing. Furthermore, the plan can be used to build confidence in key customers and suppliers and to hire talented people.

Writing our first business plan can be an intimidating experience. We may need some outside help. Small businesses often need to set up a planning team to provide good advice on a regular basis. Several sources of sound outside advice are available. The first place to start is with our lawyer, CPA, and banker. By drawing on their varied backgrounds, we will have several alternative perspectives to consider. The second source of good advice is from a working board of directors. Find trusted individuals who have successful management careers and who have some understanding of the industry.

These associates can serve as a source of ideas for planning and as a sounding board for evaluating the plan.

Always talk to customers, distributors, and industry counterparts. They can provide valuable information on the company image, reputation, and problems common to the industry.

We can take a simple step-by-step approach in which we write down the various steps and meeting notes we accumulate as we navigate through our options and prepare our plan. If we subsequently get lost in the corporate woods, our plan will be a welcome guidepost for finding our way back to the corporate way.

The Final Word. Always develop the plan before getting into the game. Why? We can count on being tempted by two fates in the heat of battle, both with potentially dire consequences. When things are going badly, our tendency is to panic and quit the plan. When things are going well, we rush headlong into new opportunities and overextend our resources. Remember the old Aesop fable—the race isn't necessarily to the swiftest or the strongest. Stay the course even when the going gets rough.

Pursuing a manufacturing or distribution approach requires significantly more money.

What are our options? Are we more comfortable with developing technology or manufacturing, marketing, or selling the products from the technology? This decision will influence whether we grow the company from its base, sell a portion or all of the business, form strategic relationships to add the missing parts to the puzzle, or enter into licensing agreements. Oh yes, it also depends on the golden rule—how much money, or access to it, we have!

Pursuing a manufacturing or distribution approach requires significantly more money than other approaches available through licensing and forming strategic relationships. In strategic relationships, we can often leverage our most prized capital—knowledge.

Entering a market dominated by large competitors without a real technology edge can be risky because of their significant resources and entrenched position. For example, Sprint and MCI continue to battle AT&T for market share in the U.S. telecommunications industry.

The potential of the market niche and its maturity will be scrutinized by any lender or investor. This objective evaluation forces us to answer many questions we might otherwise avoid. While the company may have the assets and cash flow required to attract a capital, the underlying technology (and developing products and markets from it) may be of broader interest. Time spent in confirming market potential is a critical factor in not only attracting capital, but also in preventing our ownership position from being diluted.

Another alternative is to establish alliances to enhance manufacturing, marketing, or R&D capability. For example, a manufacturer may seek a partner to market its products through a larger sales and distribution network, or engage a technical partner to perform joint R&D, to get the technology to market faster. We can use the joint R&D approach in one of our start-up companies to develop specific applications of interest to our partners. In return for an option on limited rights to a specific market, we can receive R&D funding and a significant option fee. With this arrangement, we can develop both the technology and the value of our company and attract a larger manufacturing company in the future. We also can maintain control of the company, its technology, markets, and its products.

At the other end of the spectrum, if we decide to cash out and sell the entire business, our "compensation package" might include an up-front fee, royalties, and a management/consulting contract. Consult a CPA and tax attorneys to ensure a reasonable valuation is established and tax liability is minimized.

In any event, if we have a tiger by the tail, a little objective planning is in order.

THE FORMAL BUSINESS PLAN

Once we've planned, the next step is to produce a formal business plan. The length and sequence in a business plan will vary with the complexity of the business and its corporate objectives. However, certain key elements are always needed. In particular, management must outline a crisp picture of the business, its background, critical success factors, products, and services. The fundamental question of "why" the business will succeed must be explained.

This question is answered by identifying "what" will make the business succeed. The "what" for business is a viable market interested in and qualified to buy what the business has to sell. Knowing what business we are in helps us understand how to sell our product.

Management must also spell out "how" the business will succeed. This requires the management element—who will be responsible for the various business activities and who will produce and market the product or service.

Finally, the plan must address "when" the business will succeed by showing the planned flow of funds into and out of the business over time.

A detailed outline of a formal business plan follows. We have already touched on many of these elements. This outline is quite comprehensive and may include more sections than we need or want to include in our formal plan.

Overview. Summarizes the background of and basic elements that comprise the business.

Introduction. Addresses the purpose of the business, its history, a general description of its products, product benefits, objectives, and critical success factors. The business environment, including the industry, regulatory climate, market, competition, and barriers to achieving objectives, should be described.

The introduction should include the business's alternatives and risks and opportunities. The various strengths and weaknesses in operating the business should be explored. Various options should be examined if the company decides not to invest in the existing business. The introduction also should discuss operating the business as usual; growth through expansion; growth through merger, acquisition, etc.; or contraction and selling out.

Description of Products and Services. Outlines each product, pointing out unique features or special aspects, their advantages, strengths, and weaknesses. Any intellectual property such as patents, trademarks, licenses, and royalties should be explained.

Anticipated changes should be included in this section. What products and services are planned? What products and services will be discontinued? What are the respective product life cycles and the industry environment?

The product strategy also should be covered. The most basic question is how the product will be made, followed by the basic make or buy decision. Who will carry out the R&D and engineering functions? The more subtle questions concerning the product's uniqueness or similarity, the market's size, and the quality of the product should be answered.

Marketing. Looks at several subsets: everything from who to sell to, at what price, and in what flavor. Marketing starts with market research, defines our critical success factors, and ends with a strategy that includes a communications plan.

Market Analysis. Examines the respective economic and industry environments, the customer base, the respective market sizes and market shares for each product, and market geography. This section also looks at the segments that comprise the target and total markets, needs of the market, market opportunity trend analysis, new developments in technology, growth trends in the industry, and government regulations.

The competition also must be defined, paying close attention to company size, market share, and competitive products. How do competitive products compare to the company products? How are they promoted?

The competition and their relevant strengths must be defined.

Critical Success Factors. Determines what factors are important in marketing the products, as well as the concerns of the markets and targeted industry, regulatory problems, and whether the company is a latecomer or trailblazer.

Strategy. Establishes the primary marketing strategy in promotion and advertising, how the market will learn about the products, and how the business will create a demand for the products or services.

Sales Tactics. Addresses how the products are to be sold (directly or through manufacturer's representatives, agents, and/or distributors) and how sales requests will be handled.

Pricing. Determines the selling price for the product. Small business people tend to undervalue their products or services in the mistaken belief that they are developing market share. It is fundamental to any business that no product should be sold at a profit level that does not cover operating, overhead, marketing, and distribution costs. (The gross margin should be 80 percent or more for a new product.)

Promotion. Spells out how to spread the word on the company and its products. General advertising and sales literature should be balanced with targeted direct mail and sales calls. Suitable point-of-sale displays and incentive programs should be designed for customers and sales staff.

Packaging. Describes the physical packaging, which should be economic and functional while displaying the product to its best advantage. Beauty is in the eye of the buyer and the package often a statement of the corporate philosophy. Color and layouts should be tasteful yet eye-catching for consumers; lower key for industrial products.

Management Plan. Focuses on three subsets: the management team, human resources people and programs, and facilities and equipment.

Management Team. Identifies the key positions in a basic organization chart. Flesh out the skeleton with descriptions of key management personnel who are already onboard and their specific responsibilities. Better yet, define those key people who have to come onboard to ensure the success of the business. This section also should address compensation for the people (salary, bonuses, and incentives), who will serve on the board of directors, and who will provide the professional services not fulfilled by company staff.

Human Resources. Addresses how many people are needed, who recruits new hires, who selects new hires, and what skill levels are needed for the job. The company should also decide whether to hire or buy consulting help to design training programs to keep key people up-to-date and able to manage the business.

Facilities and Equipment. Covers where the plant, offices, and warehouses are located, the capacity/throughput of the plant and equipment, plant utilization rate, and strategy and plans to expand/contract to meet manufacturing needs. The company also should consider whether to lease or buy new equipment, when and how often to inspect and maintain that equipment, and whether to have a vendor quality assurance inspection plan.

Financial Plan. Presents the bottom line. This section should be written with two perspectives in mind. First, imagine presenting the plan to creditors and to bankers and investors for a loan. Second, write down realistic projections. Do not present a false sense of security.

Financial Situation. Reviews and highlights previous financial history and then moves into the current financial condition (history can and does repeat itself in the numbers). This section should document existing credit arrangements and sources by amount and rating. (Consider whether they will come through in a pinch in case of trouble.)

Unit sales, sales, and revenue projections overall and by product should be listed. A comparative industry ratio analysis to compare the company with similar size companies operating in the market should be run. Remember, a banker will use the same ratio analysis to assess debit risk.

A detailed (quarterly) statement of operating, general, and overhead costs—don't forget contingent liabilities, insurance, and tax considerations—should follow. All costs should be expressed on an annualized percentage basis against total costs and revenue projections. This will help identify and target major cost areas to be reviewed and controlled.

Financing Requirements. Projects capital and cash flow requirements. If the company determines a shortfall, it should immediately make an appointment with its banker or lender to make appropriate provisions while the natives are still friendly. The company should think through (and state) its position on giving up equity to secure, or in exchange for, debt. The financial plan will be the basis for the company's financing proposal to lenders.

Appendices. Provide supporting information without cluttering up the plan. Appendices include schedules of major events, personnel resources and key resumes,

facilities and equipment data, financial history, product or service cost analyses, revenue forecasts and income, cash and balance sheet projections and financial ratios, organization charts, lists of major customers and principal suppliers, and insurance coverage.

Not all plans will be this comprehensive. This is a detailed and formal corporate plan and, while our plan may not require all of these elements, we should be aware enough of them to recognize whether they are important to our business and our future. Remember the old management adage of not running into buildings. Even if we cannot leap them, we should at least be able to recognize them and do some sidestepping.

EVERYTHING HAS ITS PRICE—IF WE CAN PRICE IT RIGHT

Ultimately, our plan boils down to revenues and gross margins as indices of profitability. These depend on how we price our products.

What is price? A measure of quality? The father of revenues and the stepchild of profits? An element of the product image in the marketing mix? Price is all of these things and much more to the small business. More basically, pricing impacts cash flow, the life blood of small business.

Price is an element of the product image in the marketing mix.

The most common methods of determining price are perhaps the poorest choices. Typically, follow-the-leader and cost-plus approaches are used. Follow-the-leader pricing presumes that our competitors know what they are doing and that their businesses are indeed healthy and their behavior rational.

Cost-plus is the practice of figuring the cost of producing the product or providing the service, and then adding some percentage return. This method may be useful in determining the minimum price for staying in business.

However, both of these methods fail to consider the obvious. What is the customer willing to pay for the product? All consumers tend to equate price with quality and will not pay a price greater than the perceived value received.

Achieving a premium price requires designing the product or service to satisfy the greater needs of the higher-value customer. Go the extra step and do more for these customers than is offered by their present suppliers. Decide how to reach these particular customers to the exclusion of the lower-value customers in the market—this is called niche marketing. Initially, this strategy may appear to be contrary to our longer-term desired result of dominating a broad market sector. This may mean that we follow a "loss-leader" strategy to get our product to market by serving lower-value customers even though these customers probably cannot be served profitably at the beginning of the enterprise. Rifle shot marketing efforts to maximize selling opportunities.

We do not have to be economists to set an initial offering price. The logical steps are fairly simple: determine the break-even price; select the target market; determine an image for the product to satisfy that market; attach a price that is compatible with the desired image; and finally, test the price in the marketplace.

Psychologically, pricing strategy must be influenced by the nature of the product and the timing of its introduction. Here's a brief guide to help us decide if we can charge a "skim" (higher) price when introducing a new product: our product is new or unique; our service is difficult to copy; we have a monopoly, an exclusive patent, or franchise; or we have a status product.

How much will our customers pay for premium-grade products? If we rate the quality of a product as economy, commodity, good, better, or best, the difference in pricing between best quality and economy grade is typically about 9 percent.

When should we charge the same as our competitors? Pricing to match the competition converts the product into a commodity, which mirrors everyone else's. In the process, we forego any differentiation in features or benefits. Here is a guide in determining when to match the competition: we are already the low-cost supplier and can capture market share on other features/benefits; our product is easy to copy; our market is an oligopoly, a fancy name to explain a market with very few sellers; or we have many competitors in our market.

If we must introduce our product or service at a lower price than our competitors', then we need to establish a promotion price and clearly label it as such. Otherwise, our first price will set the market, our penetration pricing strategy may backfire, and our product will lose its value. We may never be able to increase our price in the future.

Adopting a price-penetration strategy to gain market share at a lower price than the perceived customer value is typical of the following situations: our market is price-sensitive; our market is growing in any event; we wish to serve a strong after-market; our cost significantly decreases with volume; or we are the low-cost supplier and wish to discourage competition.

Targeting gross margins or a return-on-sales criteria as our marketing strategy requires that the value to our customer be more than the price we arbitrarily determine by some formula. These strategies work under the following conditions: our market can support volume increases at any price; we are the market leader; we are the low-cost supplier; or we are selling in an inflated environment.

Price can be used to position our product when pricing creates an image of exclusivity. Cosmetics or personal-care products may be priced higher and achieve higher volume

when the price says "treat yourself to the very best" or "you are worth it." This strategy works best when the following is true: our costs do not decrease with volume; we are the highest cost supplier; or we want to encourage competition.

The best method to determine optimum price is through testing. A simple means is direct mail. Prepare test ads for the product that are identical in every detail except one—the price. Let's say we can't decide whether to charge $3, $4, or $5. We divide our prospect list into three and send out three offers at $3, $4, and $5. The only difference among the offers is the price, and they are all sent at the same time. Timing can strongly impact responses. Also, we make sure that we distribute our offers equally if there's an economic differential in the test areas.

Proper pricing should increase working capital.

When the orders come in, tabulate the results. We will probably want to go with the price that produces the greatest dollar volume. However, if the difference is less than 5 percent, we should go with the lower offer. Be sure the sample is large enough.

The payoff for proper pricing and serving the high-value customer first should be to increase working capital while saving precious equity. This should reduce the amount of financing needed for the new product at the outset and make the stock worth much more in the future.

6

Licensing the Pieces

- Why Should Small Business Be Interested in Licensing?
- Technology May Pay Best in Someone Else's Company
- Technology Licensing Can Become License to Make Money
- No Mystery to Examining Licensing: Prepare
- Don't Play Licensing Game Without A Plan
- Each Licensing Agreement Has Standard Terms
- Here's the Shop Manual for Licensing "Tool"
- Routes Vary on the Road to Royalties

Daedelus, the great inventor, created wings of wax and 'licensed' his son Icarus to wear them so that both might escape the monstrous Minotaur. But when consulted on how to use them, he found his advice not to fly too close to the sun ignored, and Icarus was lost. In today's even more competitive world, licensing can open up growth opportunities for small business. In this chapter, we shall answer the who, what, why, when, where and how of licensing with some sage advice to be ignored at your peril.

LICENSING THE PIECES!

WHY SHOULD SMALL BUSINESS BE INTERESTED IN LICENSING?

Licensing is one of several options available to get our technology to market. Why should small businesses be involved in licensing? In a single word—profit! In this context, we should not necessarily equate profit with dollars. Businesses can "profit" in a number of ways.

To Make Money. License fees received from royalties, management assistance, and technical service produce income that can support in-house R&D. It is often faster (and safer) to generate income from new markets through transferring technology than it is from direct export sales.

To Sell Additional Raw Materials, Parts, Or Services. Sales to licensees often permit a manufacturer to tool up for longer production runs with consequent economies of scale. Not only does this add income to the top line, but it can increase the profit from the local market. We reduce the unit cost of production and increase our gross margins.

To Set Up Joint Ventures And Subsidiaries. Technology and intellectual property may be bartered for an equity position; the classic venture capital deal. This is our big chance for IBM to come in and buy us out (nice fantasy!). If they do, we reap return in dividends, tax savings, and management fees. Indirectly, we may acquire new people or may be able to develop the capabilities of our existing staff.

To Test Market A New Product Or Process. Regulatory approval in the U.S., for example, for many products (i.e., pharmaceuticals and building products) is costly and time consuming—several years and several million dollars. Licensing permits a quick evaluation in a foreign market without equity contribution. This cautious approach can ensure success not only in introducing a product in the local market, but also can justify overseas investment in a manufacturing venture. McDonalds, P&G, and others use a variation of this theme to test market new products in particular regions before going nationally.

To Swap Technology. As a producer in a specialized field, we may decide to pool resources with a foreign producer in a cross-licensing exchange arrangement. This agreement requires a two-way technical exchange to provide access to new products or to improve the quality and/or application of the existing product line. Research costs would be split and development/introduction of new products to market increased. Union Carbide announced an agreement of this type with a catalyst manufacturer in Japan to exploit a low-density polypropylene process similar to their successful Unipol polyethylene process. If you can't beat 'em, copy 'em!

To Fund R&D. A continuing research effort can often be underwritten by income received from licensing agreements. Either main-line or by-products may be spun off to increase cash flow. Even the U.S. government is getting into the act through transferring technologies developed at federal laboratories to businesses. Closer to home, most universities are seeking to license campus inventions to keep research costs down. Gentech is a prime example (to exploit gene splicing technology). NASA is another example (Landsat for geological surveying).

To Sell A Company. Often the sale of the company requires transferring key technology to the new owner and continuing service to an existing market for a period of time after the sale. Because it may be cheaper in the long term to buy a smaller company and its key people outright, this transfer is a preferred way to achieve diversification.

To Commercialize New Products. How often does a bright employee come up with a new product idea that is outside of the scope of the existing business? How many horror stories have we read lately about key employees leaving with the goodies and going into direct competition?

The potential of licensing is not fully appreciated by small business. In these days of rising costs, declining markets, and rapid change, our ability and enthusiasm to engage in licensing can preserve our income, protect our competitive position, and ensure our survival. Licensing should be considered a basic technology management tool.

The potential of licensing is not fully appreciated by small business

TECHNOLOGY LICENSING CAN BECOME LICENSE TO MAKE MONEY.

We just looked at what's in it for the licensor, but what's in it for the licensee?

The licensee's position is often more complex than the licensor's, particularly for the small business threatened with obsolescence. Of course, this presumes the potential licensee is in touch with the marketplace. The current computer shakeout is reminiscent of the impact the transistor had on the valve makers in the audio industry. Technology can leap-frog its competition and history does repeat itself.

What other options are available to companies to develop or acquire new or improved products or processes? We can develop it within our own organization; buy the technology (and/or the company) outright; license the technology directly or through a joint venture plus license combination; copy the technology, infringe any applicable patents, and take the consequences; swap technology in a cross-license arrangement; or reverse engineer the technology with the help of an engineering contractor.

With so many options, why would we prefer to license our technology? In general, in setting up any business operation, a company wants to establish a protected position.

Proven technology, patent rights, trademarks, access to technical assistance and improvements, and perhaps, even the option to duplicate existing manufacturing facilities all offer protection. Taking a license could be classified as "insurance." Consider these factors when acquiring a license:

- Substantial savings in time and money versus the alternative of developing a similar product or process in-house.

- Costs amortized over a number of years as compared to year-to-year operation expense. There is a significant reduction in financial risk if the process or product is already commercialized.

- Responsibility of the licensor rather than licensee for policing and enforcing the intellectual property rights. The licensor bears the cost.

- Selling a license may be the only way the licensor wants to do business.

- Relationship with a more successful (larger) firm, even a foreign firm, from whom future technology may become available.

Given these choices, we may decide to acquire technology through licensing. When should we act? What factors might incite us to act now instead of later? The basic gut issues often revolve around self-preservation and gross margin. Let's consider some stimuli.

Self-Preservation. If we have a profitable product or process that studies show will soon become obsolete or unprofitable, converting to a new product or expanding our portfolio of products via purchased technology may well be a bargain. We may save time, money, and R&D costs, particularly if the new portfolio can be integrated directly into the existing sales and distribution network. We may save our business if we obtain "first user rights" to a new and better process before it reaches the hands of our competitors.

Improved Manufacturing Economics. In many instances, a third party's improvements may supplement research efforts to improve technology and increase gross margin by reducing production costs (raw material usage, labor content, and/or energy consumption).

Duplicate Plants. As a cautious licensee faced with an expansion in a profitable product line, we may install a number of parallel units of the size of the original manufacturing plant rather than be exposed to any scale-up risk.

Technology Packages. As a refiner or chemical plant operator, for example, we are required to integrate a number of operations to process the initial raw feedstock into various products. Separate licenses may be required for the separation and purification stages to augment reaction technology.

Continuing R&D Access. We may require continuing access to technically trained people in special fields outside of the normal sphere of operations. We can access such service as needed at lower cost. Then, too, we may wish to provide for a continuing technical exchange with a partner to promote a cross-fertilization of ideas.

Trademark Rights. Sales and marketing efforts of imported products, which we have the right to manufacture and sell, will be enhanced if they are promoted under a well-recognized logo, brand name, and trademark umbrella.

For the sake of argument, let's assume we identified potential licensors and commenced a dialogue. We reached a prenegotiation stage where the licensor is about to send us information and we're wondering what steps to take.

Review any information on a nonconfidential basis where possible, or if entering into any obligation of confidence, limit such obligations in time and to specific application. We must not compromise in-house efforts, but neither should we be blinded by the research director's efforts to justify his position at the expense of outside technology.

Study the technology in detail to ensure it can be readily integrated into the existing operations and carefully check the resources, reputation, and credentials of the licensor. What is the strength of the organization behind the "front man" who is leading the dialogue? Are we pretty sure when he says "we can do it" that he has the resources and authority to back it up?

Study the technology in detail to ensure it can be readily integrated into the existing operations.

Define clearly what we expect to license and the concurrent investment in license, plant, and operating fees. Is the licensor seeking to recover additional income from technical service fees? Do we need any special machinery? What spare parts are required? What is the turn-down production ratio and typical on-stream reliability?

Weigh the merits of negotiating an option to license the technology while requiring the licensor not to negotiate with another party for a period of time. Be warned—this is tough to get.

Check that the licensor will be responsible for protecting his rights if patents are involved; sometimes potential licensees are expected to pay the cost of maintaining patents.

Request the licensor to give pertinent details of any foreign patent filings and/or publications abroad. With whom has the licensor dealt with previously; what rights were

conferred; what type of agreements? Can we visit his or another licensee's facility to check that the manufacturing operation is reliable?

Assemble our own licensing team—technical, commercial, and negotiation—and try to forecast what the licensor's position will be. If the company does not have a licensing department, consider hiring a licensing consultant for assistance.

DON'T PLAY LICENSING GAME WITHOUT A PLAN

Now that we've covered the waterfront on using licensing as a basic management tool, we will move along to a corporate policy statement—the game plan. This will help us decide how and when to play the licensing game.

Let's return to SmallBiz, Inc. Our policy statement requires that we define those circumstances under which SmallBiz is prepared to license technology as either a vendor or buyer and state the reasons, if any, why licensing may be inconsistent with corporate goals. Let's go back for another look at our broad policy statement.

The Policy Statement. "The licensing activities of SmallBiz are sensitive and of great potential importance. They will be carried out so as to assist the corporation in reaching its strategic and operating objectives and in such a manner as will preserve the good reputation of SmallBiz in the marketplace."

This is a long-winded way of saying that we will engage in licensing to enhance our strategic and financial positions and our reputation. Now we must examine the details of SmallBiz's policy as both a licensor and licensee. SmallBiz must determine exactly who, when, why, and where it will license technology.

Smallbiz As Licensor. SmallBiz normally will license its major commercial technology and/or patents only under certain circumstances: to those companies in which it has a significant equity participation and a strong management voice (affiliates); as a tool to obtain such participation and voice upon restructuring or upon establishing of a company; and in exchange for technology and patents of comparable value (an exception to this policy will be considered in those countries that do not permit private ownership of manufacturing facilities).

SmallBiz is prepared to license out technology and/or patents other than those mentioned for a reasonable return or to further its strategic interests. SmallBiz would look with favor upon the return being in the form of technology and/or patents that can be put into commercial use by SmallBiz, but is prepared to accept royalties and money payments.

SmallBiz is not normally prepared to license its major commercial technology and patents to other than affiliated companies in the U.S., its primary operating territory. As an exception, SmallBiz may grant licenses where it receives an exchange of technology and patents of comparable value, which grow its core business.

SmallBiz is prepared to receive payment for licenses in equity, cash down payments, running royalties, or any combination thereof. SmallBiz prefers that at least a part of the payment be a running royalty to provide a continuing income to SmallBiz. Such income contributes to funding the continuing expense of SmallBiz research whether in-house or external.

SmallBiz will provide continuing assistance to companies to whom it has previously licensed major commercial technology for a reasonable running royalty of a magnitude sufficient to make a contribution to the cost of SmallBiz research.

SmallBiz prefers that any licensee of major commercial technology grant back to SmallBiz rights to any improvements that the licensee may make in the technology with the right for SmallBiz in turn to pass on such improvements to other SmallBiz affiliates and licensees.

SmallBiz will license unproven technology (technology not in commercial use) only where there is an unusually high probability of commercial success and when the licensee clearly understands the state of development of the technology.

Within these guidelines, SmallBiz will actively seek to license its technology and patents throughout the world, but only where the anticipated payment is large enough to show a reasonable strategic and financial return for the effort.

SmallBiz will do research work primarily to develop technology for commercial use by SmallBiz and will not normally do research work primarily for licensing to third parties.

SmallBiz will not normally give exclusive licenses on a long-term basis.

In formulating this basic outline, we have considered many options that would be suitable for a large multinational corporation. The policy should be written to reflect the company situation and size. A note of caution: do not forget the zero option—not to license out at all.

In this case, the company decided not to exercise the zero option, so let's examine a broad brush policy for SmallBiz as licensee.

Smallbiz As Licensee. SmallBiz aggressively seeks to take licenses from third parties to acquire commercial technology and/or patent rights new to SmallBiz.

SmallBiz will endeavor, when acquiring licenses, to obtain the rights to sublicense its affiliated companies throughout the world.

SmallBiz will develop its own technology rather than license same if the overall costs of licensing, including the restrictions imposed by the licensor concerning how SmallBiz and its affiliates will use the licensed technology, are uneconomic.

SmallBiz is normally reluctant to license technology that has not been used commercially and will do so only when the potential reward fully justifies the risk.

SmallBiz will establish relationships with other companies in the field throughout the world to increase the likelihood that these companies will be prepared to grant licenses to SmallBiz.

SmallBiz normally will license technology that has been highly developed commercially and is available from several sources at a competitive price rather than attempting to develop such technology itself.

Hopefully, this broad policy outline will help and will encourage us to sit down and write a corporate licensing policy. Armed with our play book, we'll be ready to punt, pass, or run an option on fourth down when the coach puts us in the corporate game.

EACH LICENSING AGREEMENT HAS STANDARD TERMS

The good news—we are excited about the possibilities available through licensing. The not too bad news—enter the lawyer from stage left to examine typical terms and conditions found in a license agreement.

Warning: each license agreement is unique even though it may be the sixth in a series conferring the same patent rights to different licensees. Each corporation's needs are very different! It is unlikely that any single agreement reviewed will cover all the terms discussed. Remember that the art of negotiation requires that we give a little to take a little, so expect to bargain. As business people, we must clearly define priorities to decide which items we can give up if necessary, and which ones are critical to preserve.

The art of negotiation requires us to bargain with our critical issues defined.

The following outline can be used as a checklist to assist business decisions by providing possible alternatives, for reviewing draft agreements prior to execution, and for discussing terms if an attorney drafts the agreement. This list may seem a bit exhaustive, but bear in mind that it

doesn't come close to covering all the possible variations in the broad field of licensing.

Recitals—Who Is Doing The Deal And When. Who are the parties to the agreement and what are their addresses (to identify them)? If they are corporations, are subsidiaries included? What is the effective date of the agreement? Is it conditional upon governmental approval? Does it include the period of past infringement, or is it effective on signing? Does it supersede or cross-reference other agreements?

Warranties And Whereas Clauses—Why Execute This Deal. These are general statements identifying what the licensor represents is being sold and descriptions of the business purpose for the licensee in acquiring the license. Is the licensor warranting the validity of any patents?

Definitions—Let's Take Care Of Any Misunderstandings. The licensee wants to clarify the licensed rights as broadly as possible to ensure rapid commercialization. Key words and phrases, such as patents, know-how, field, affiliates and subsidiaries, and improvements, are defined.

Grant Provisions—What You Are Buying/Selling. What rights is the licensor selling? Do they include rights to manufacture, sell, and use the product under patent, know-how, and trademark rights? Is the license to be exclusive or nonexclusive? Does the licensee have/confer the right to grant sublicenses? Are the rights particular to specific territories? Are the rights for a defined period or for unlimited future use? Is there a release for past infringement?

Technical Assistance—Is The Visiting Team Friendly? When the license includes technology and know-how, what assistance is required to set up the operation? Who prepares the technical manuals, process designs, and blueprints? Who trains the plant operators, where, and at what cost? Is the technical assistance provided as part of an initial payment or under continuing service at a per diem cost? For what period is the assistance to be continued?

Payments And Royalties—How Much Protection? What does the "compensation package" include? Does the payment consist of one single lump sum, or is there one or more initial down payments and/or a continuing royalty on the goods produced and/or used? Does the continuing royalty obligation include minimum and maximum annual fees? Are they capacity dependent? Are the fees tied to a future escalator such as the U.S. Government's published Producer Price Index? Are option payments creditable against future royalties? Does the licensee want to pay "in kind"–with a product?

Other Payment Considerations—Watch The Gotchas! Does the payment include stock in a joint venture or affiliate? Are there cross-licensing rights and/or a technology

swap and, if so, under what conditions? Is this settling a litigation or an interference action? Will the costs for advertising and patent maintenance be shared?

Special Provisions–The Lawyer Earns His Fees. Set quality standards as a condition of conferring trademark rights. Who has the right to the plant equipment and the residual finished product upon termination? Is there an option to buy a percentage of the licensee's production? Under what terms? Set limits on licensing to/from others in the same "field" bearing in mind antitrust considerations. Use due diligence and "most favored nation" clauses to cancel with notice. Use the "golden rule" clause permitting renegotiation at any future time to cure any inequalities. If licensing out from the U.S., include a provision that the license is subject to U.S. Export Control Laws, including cancellation.

Grant Backs—Protecting Your Rear! A grant back is simply the giving of rights to future improvements, patentable or unpatentable, arising from the licensee's use of the licensed technology. This is a red flag antitrust area! Who will have the rights to future improvements; indeed, will there be any? Does the licensor require these grant backs to protect future business? Does the licensor want such rights for its own manufacturing operation or to extend its licensing program?

Financial Reporting—Keeping Score. What records should be kept, and who may inspect them? When should the royalties be paid and reported—monthly, quarterly, annually? If payments are subject to withholding taxes, who pays? Are they creditable against U.S. taxes? What currency will be used, and how will the exchange rates be set?

Patent Validity—Dirty Pool? Can the licensee contest patent validity? The law varies between countries. If governing law limits the scope of the patent and/or its validity, the licensee benefits. Some jurisdictions hold that it is illegal to obtain continuing royalties under invalidated patents. Is the grant of rights jointly or separately under patent and know-how? When the license grant is under both patent and know-how, if the patent is held to be invalid, the license agreement may still be enforceable.

Trademark Provisions—Using The Family Name. Does the licensor have a foreign mark, or is an application pending? How is the mark identified and displayed? What is the territory and field of use? Who will maintain registration? Who will police and enforce the trademark? Does the licensee agree not to use any confusingly similar trademarks? Does the licensee agree, upon termination, to cease use of trademark rights?

Third Party Infringement—The double-cross. What actions will be taken if a third party infringes the licensed patents? Who will bring suit, who will instruct the attorneys, and who pays? Who has the right to settle infringement actions and who will share in any recovery? If no suit is filed or the infringer prevails, will the licensee continue to pay royalty or will the license be terminated?

Licensee Infringement Suits—The Good Buddy. If the licensee is sued for patent or trademark infringement, who will defend and pay for the suit defense? Will the licensor support the defense with evidence and witnesses? If the plaintiff prevails, will the license, and its obligations, be terminated?

Agreement Term—When The Marriage Breaks Up! Is the period of agreement for the life of the patent or for a fixed term? Is year-to-year renewal automatic, or is it conditional upon performance factors including bankruptcy? Can the license become nonexclusive? Are there continuing obligations that survive termination? Must the licensee cease operation upon termination?

Secrecy—Not Exposing Yourself! What are the terms of confidentiality and the "standard exceptions"—previously known information, public information and, later, bona fide third party disclosures? Is the information disclosed solely to practice the licensed technology and not for any other use. Is disclosure permitted to subsidiaries and affiliates? How is dissemination of information controlled? Does the licensee have employee secrecy agreements? If so, are the terms no less favorable than those required under the license?

Force Majeure—The Catch-All. During the term of the agreement, external factors may change to such an extent as to make the performance of the agreement as contemplated impossible. What events should be included, if any (acts of God, strikes, government regulations)?

Miscellaneous ("Boiler Plate")—The Lawyer Bites Twice. What law and language will govern the agreement? May the licensed rights be assigned and/or used as collateral to secure capital? How will disputes be settled that may arise, by arbitration or legal action? How and where will notices be sent?

Signatures—Questioning Authority. Does the other party who will execute the agreement indeed have the authority to commit and bind his company?

Schedules—You've Got To Stick It Somewhere. For convenience reasons, schedules covering the list of patents, trademarks, equipment, etc., may be appended to the agreement. Where an option is being exercised, the license agreement itself is the appendix.

Armed with this broad brush checklist and defined objectives on what we want/are willing to give up, we are ready to enter the negotiating arena. One final question remains: how do we determine whether or not we got a good deal? Simple answer: when we leave the negotiating table believing we gave a little more than we should have

and we notice that our counterpart has a similar strained expression on his/her face, it's likely the deal is a good one.

LICENSING: THE FACTS OF LIFE

Licensing means different things to different people. To a lawyer, licensing may be law; to a patent specialist, patents; to a business executive, business; and to an inventor, profit—perhaps! High-tech and emerging growth industries are much in vogue today whether in the stock market or in the economic development keenly sought in most states. For all our wisdom and brilliance, we as individuals and corporations often overlook the basic tenet of commerce—businesses exist to make money! To develop or exploit technology is not the primary objective of most businesses. But licensing, as a basic management tool, can be advantageous to small businesses seeking new markets with minimum commitment and lowered risk.

Licensing is not a panacea. It is not a sugar pill for small business! For the unwary, there are some hard lessons to be learned. In view of these hard lessons, I would like to share the 10 licensing facts of life gathered from my associates, my own experience, and other sources.

The commercialization of technology requires significantly more time, effort, and money than that expended in actual invention—there is more technology than money to commercialize it! The world doesn't beat a path to the door of the inventor of the better mouse trap. We can't make money on widgets if we can't sell them. The "press the flesh" approach has not been repealed.

A patent is only as strong as the amount of money available to defend it. Company size is often reflected in the degree of disclosure and detail filed in patents. Why? Patent law simply requires that the degree of disclosure be such that one versed in the art can duplicate the invention. The larger company doesn't have to fence off its territory by describing its technology in as much detail as the small business. Patents, then, are the first line of defense in establishing proprietary turf so that business interests can be preserved.

The major share of intellectual property created by industrial companies is used in the companies themselves to establish and protect a competitive position, rather than for licensing out—3M is a good example. Market share and position is the name of the game. Large companies, such as Dow, DuPont, and Motorola, also license "in" to increase their turf.

The greatest percentage of licensing takes place in the U.S. and EC countries and between companies residing there. Switzerland and Sweden are important countries in this field. Japan, for all the publicity it receives, is just starting to license technology out.

It is comparatively easy for a licensor seeking to license (sell) a product or process to prepare a list of potential licensees (buyers) and make a formal approach. Who makes

what and where is published in many magazines and trade journals such as *Thomas Register*.

It is much more difficult for a licensee wishing to license (buy) a product or process to identify licensors (sellers). Businesses neither advertise their problems nor their advantages for competitors to see. In those cases where publicity has occurred and everybody has read it or seen it, we've probably already missed the boat.

An invention or technology that is already proven in terms of production and markets is relatively easy to license, especially overseas. Working plants confer credibility and significantly reduce risk. The majority of licensing situations are in this category, for example, a parent company may license a technology to a subsidiary company to make a specific product.

Beware when the prospective licensor is a private inventor or an R&D organization. They first have to identify companies that are willing to take the considerable risks involved in evaluating the technology and setting up initial manufacturing and marketing operations. Licensors in this category often suffer the frustration of approaching innumerable companies and investors and generally getting either a flat refusal or an offer they find unfavorable. The individual inventor is easy prey to so-called invention management companies. These companies typically charge an up-front fee to assist in the patenting and/or promotion of the idea.

Most major industrial companies have formal departments set up to look for new products with which to expand their businesses, maintain employment levels, and increase plant utilization. They are looking for products combining the following characteristics:

- Preferably proven technology and markets!
- At least ready for manufacture and marketing. (Some companies search for "conceptions" that they then hope their own R&D, or a partner, can reduce to commercial practice.)
- Compatible with their own manufacturing and marketing activity.
- Reasonably favorable business terms so that the risk is minimized. (It is difficult to judge how favorable the terms are until an in-depth study is made.)

Many companies today employ consultants to monitor the licensing market on their behalf, since such business opportunities are, in fact, few and far between. The consultant scrutinizes computerized databanks, business directories, trade shows, early-issue patent literature, and new product lists; numerous new business and trade journals; advertising of new business opportunities by government departments (including embassies) and other public agencies; "Business Opportunities" from established periodicals and papers

such as the *Financial Times* and *The Wall Street Journal*; and technical columns in journals, annual reports of large companies, and similar desk research.

The consultant may approach the following sectors directly or through established licensing contacts: private industries and governmental entities, nationalized industries, and private sector R&D laboratories; merchant banks and other investment organizations; technology brokers, new idea scouts, and consultants; or universities, R&D firms, and other proven sources of new technologies and processes.

Regrettably, the nature of the human species predestines that we continue to repeat the mistakes of our predecessors—reinvent the wheel. However, if we temper our enthusiasm, swallow hard on bitter pills, and remember some of these lessons, we should be able to include licensing as a profitable tool in our management portfolio.

ROUTES VARY ON THE ROAD TO ROYALTIES

One of the most important and difficult issues to be resolved in licensing or buying technology is to figure a royalty or value to be placed on the patents, trademarks, know-how, and services to be transferred.

As licensors, most companies resort to the use of rules-of-thumb in figuring a suitable royalty rate. It is commonplace for royalty rates to be based on a rate equal to a prior rate for a similar license, a rate equal to a rate for a similar industry product, an established rate irrespective of product, a rate to yield a minimum fixed-dollar amount, or "whatever the traffic will bear" or "horse trading."

Keep squarely in mind that any licensee will become a business partner or vice versa. Each will share, equally or not, in the other's gain or loss.

If we price solely on the basis of horse-trading, we may end up with a royalty that is too high to leave the licensee a margin of profit, or worse, any financial incentive to exploit the licensed technology. Alternatively, we may end up with a rate that is too low to cover the minimum cost of writing the agreement, transferring the technology, and maintaining the license.

Setting royalties to yield a fixed return or at a single fixed rate is designed to encourage licensees to perform satisfactorily for licensors. Figuring royalties based on previous experience and/or set industry standards is, by far, the most common of the rules of thumb used to negotiate licensee fees for technology.

The following are typical product royalties, expressed as a percentage of sales:

General Consumer	1/2 to 4%
Specialty Consumer	4 to 10%

General Industrial	4 to 10%
Specialty Industrial	10 to 15%

Compare these rates with so-called industry standards, expressed on the same percentage of sales basis:

Chemical Industry	1 to 3%
Electronics Industry	2 to 5%
Industrial Industry	3 to 6%
Computer Programs	to 50%

The more significant the technology and the greater the protection and market potential, the greater the royalty.

What level of royalty should we expect to pay or receive for a product license? This is a little like asking what price a person can get for a house and its contents. The only possible answer is that it depends on the house and its contents, and on a great many other factors.

Fair royalties are determined generally by negotiation. This assumes we exempt ourselves from any rules-of-reasonableness that are sometimes imposed by foreign governments.

To successfully negotiate a reasonable royalty, we must enter into a license negotiation with some idea of the maximum and minimum royalty range that is attractive to both parties. We, as a licensor, may then propose a rate close to the maximum while knowing how far we can retreat before reaching a minimum profitable price. If we are the licensee, we, in turn, can make reasonable counter offers without risking a walkout or deadlock.

Are we sure we really want to grant/take the license? We'd better do our homework. What do we have to sell—patent rights, trademark rights, know-how, established reputation in the industry, research back-up? What do we wish to buy?

As a licensor, what are our prospective licensee's abilities to perform and to pay? What do we desire and expect? Can the licensee innovate? As a licensee, how will the licensor support us and get us established in business?

Keep squarely in mind that any licensee may become a business partner.

To answer these basic questions, consider the following related to the license, the product, and the markets we plan to serve:

- Is the license exclusive or nonexclusive? How long?

- What is the size of the market and market penetration?
- What is the investment required for manufacture?
- Does the market already exist or must it be created?
- How much will it cost to establish sales channels?
- What is the prospective return on investment?
- What are the nature and extent of competition to be expected?
- What is the market life for the licensed technology?
- What are the market characteristics—mass or specialty?
- What patent coverage is involved?
- Is the right to use a trademark included in the agreement?
- How "firm" and "secret" is the trade secret position?
- What kind of lead time will the license afford?
- Will the agreement include engineering or other data?
- What technical help, know-how, or show-how is provided?
- What would it cost to "reinvent the wheel"?
- Will we create a new market or reduce production costs?
- Are profit margins in the industry sufficiently high?
- What are the "going rates" for the product or industry?
- How do we wish to pay, or get paid?

To determine the minimum rate or break-even point at which the technology should be licensed, estimate and list all the costs involved in fulfilling the obligations of the

proposed license for the period of the agreement. These costs should be discounted back to the present day values.

Next, try to estimate the maximum price a licensee could reasonably afford to pay and alternatives available to him or her. These may include licensing competitive technology, infringing on the patent and risking the consequences, designing around the patent, figuring the "added value" of the license, and deciding not to enter the business after all.

Some may argue that this quantitative approach may be quickly negated: irrational behavior by the licensee; rigid adherence to precedent and "industry" royalty rates; and difficulty of making the assessment.

In these cases, we as a licensor may be forced to accept a less than satisfactory agreement or end up with none at all. However, at the very least we will have an idea of how low/high we can go before accepting terms that will result in a loss.

A fair royalty has been established when both parties leave the negotiating table slightly disappointed: the licensor feeling that the royalty is not as high as it could be and the licensee feeling that royalty is more than it should be!

A fair royalty has been established when both parties leave the negotiating table slightly disappointed.

7

Aligning the Pieces

- Grow A Business With Strategic Alliances That Pay Off
- R&D Consortia as a Business Strategy

T*he greatest hero in all of Greece was Hercules. Although a man, his strength ensured that he was the equal of the gods and they looked to him as an ally many times. As the gods discovered with Hercules, forming strategic alliances can offer a number of significant benefits when growing a business. Benefits such as increased knowledge, networking with industry partners and competitors, cost-shared R&D, pooled technical and business resources are all designed to spread the risk and increase chances for success.*

ALIGNING THE PIECES

GROW A BUSINESS WITH STRATEGIC ALLIANCES THAT PAY OFF

Don't get the impression that licensing is THE solution to the technology puzzle. Licensing is a powerful piece in the technology puzzle. But, licensing is a subset of strategic alliances.

Priming the innovation pump to develop new product is critical to competing in a global economy. The stakes in this game, however, have risen beyond the resources of most companies. Small businesses must find ways to supplement and complement in-house resources to meet this challenge—without draining the cash they need to support their current businesses. Forming a strategic alliance may be an answer for some companies.

Strategic alliances differ from other standard business arrangements because of the greater degree of communication, collaboration, and integration between the companies. Alliances also represent a proactive approach to the development, marketing, and distribution of products.

The challenge in any strategic alliance is to analyze the strengths, needs, and concerns of both parties.

Forms. Strategic relationships can take many forms: raw materials sourcing, marketing arrangements, equity investments with purchase options, and industrial consortia. Several common themes are present in these relationships: development of a new product or technology by one party with manufacturing and distribution rights resting with the other; joint technology or product development with shared responsibility for manufacturing and distribution rights in the same or different markets; and consortia, multiparty contributions of know-how, resources, and funds to develop process technology collectively.

Strategic alliances can take the form of traditional arms-length or integrated relationships. In the latter, intellectual property and know-how are shared under cooperative marketing, original equipment manufacturing, and joint R&D agreements. Cross-licensing, toll manufacturing, equity investments, licensing, and mergers and acquisitions evolve from successful alliances. Allied to strategic alliances is "corporate partnering"—an equity investment in a smaller company with a license to use its technology.

The challenge in any strategic alliance is to analyze the strengths, needs, and concerns of both parties. Each party must understand clearly the purpose of the alliance and whether any third party relationships are necessary to meet common objectives. Such relationships must be structured to resolve and protect any proprietary interests,

confidentiality, intellectual property rights, and future ownership of any technology that may be developed.

Do's And Don'ts. There are some do's and don'ts to be mindful of in forming strategic alliances.

Don't form an alliance to correct a weakness. Many companies form relationships to correct an inherent weakness. The company that brings a weakness to the table will be forever at the mercy of the other party. Even if the alliance is a 50-50 cash deal, the weak partner will never be an equal partner.

Don't form an alliance with a partner that is trying to correct a weakness of its own. The theory, again, is simple. The company will inherit the weakness and will be the worse for it. The dominant partner becomes responsible for the others.

Don't license proprietary technology. Consider the lessons Japan has taught us in the last decade. Break-through technologies such as transistors and LCDs were acquired and developed into profitable, competitive products knocking some of our biggest companies (RCA and Zenith) out of the game. Think of a strategic alliance as a cooperative collaboration. Using this definition, it is very clear that the company should not transfer core technologies and skills to potential competitors. Technology might be used as a weapon against the company in the future.

Do exploit strengths to develop applications and markets for the technology. By contributing proprietary technology, the company position can be strengthened and amplified through the relationship. Forming an alliance with a partner who also has a unique strength has its advantages. Combining the synergies of a manufacturing company with a skilled marketing and distribution firm is a good example. This is one of the key rules of successful alliances—neither party should be a future threat to the other.

How To Plan. There are a few critical elements involved in forming and maintaining successful alliances.

Know how to play before starting the game. Save time, money, and heartburn by reaching consensus on objectives and constraints before entering a negotiation.

Build relationships at the appropriate level. Strategic alliances are unlike marketing or purchasing agreements. They require the attention and support of senior executives because of the commitment needed.

Discuss, in preliminary stages, what each party wants and expects to gain from the relationship—no surprises. It is critical to make sure that the goals of each company are compatible. Strategic alliances require a win-win posture.

Maintain a healthy empathy for the position of the other party to determine whether the relationship might be beneficial.

Recognize that the alliance is a collaborative venture and that its foundations and negotiations must reflect this. Avoid a win-lose attitude. When the negotiation is finished, the companies must view each other as partners in a collaborative, long-term enterprise and not as adversaries.

Plan an exit strategy upfront. All relationships eventually end. Know when the alliance has met the objectives and what is the appropriate exit strategy.

Legal Forms. In simplest terms, the issue is whether the alliance will be established as a new separate entity or whether it will be a contract between the existing parties. Both forms have their own advantages.

Separate Entity. If the goals require a long-term commitment of management, resources, and significant capital and operating investments, a separate entity might be appropriate. Generally, the choice defaults to a partnership or a corporation. There are various tax considerations for which we should seek legal advice.

Contractual. The contractual form is usually simpler and more flexible. It also avoids many of the difficulties associated with management issues that may arise in forming a separate entity. On the other hand, the question must be addressed as to whether this is an effective commitment of resources over a long period of time. Spell out any residual rights at the conclusion of the alliance and ownership of any new developments before, during, and after.

Management Issues. Another critical issue to be faced is one of control. This issue takes two forms: policy and day-to-day operation. Policy issues represent the most difficult problems since they are most likely to affect the success or failure of the alliance. Decisions on these issues also are likely to require the greatest obligations financially or otherwise on the parties. Policy issues are generally decided by a board of directors for a separate entity and an advisory committee for a partnership.

Day-to-day operations can be handled in a variety of ways. If a project is significant, we may wish to recruit an independent manager or group that is not associated with either party and, therefore, is objective. Otherwise, day-to-day operations can be performed by management loaned from one or both of the parties depending on the number of functions being undertaken. A variation of this, of course, is to switch managers over a period of time or to have one party manage the entity under a management contract with appropriate milestones.

Technology Rights. Strategic alliances must define the scope and use of the technology that either is provided to, or developed by, the alliance. The decision affects markets and whether the alliance is contributory or competitive. Future technology rights will always be an issue, particularly if one party is contributing proprietary technology that will be developed further through the alliance.

The ownership of developed technology is one of the most difficult issues. If the development work is performed by a small-business partner without the creation of a separate entity, that partner will control the technology. However, if the development work is collaborative, the parties must carefully define their respective future technology rights.

One party may suggest joint ownership to solve the problem. This approach has many pitfalls. First, the effect of joint ownership varies between different intellectual properties (i.e., patents, copyrights) even within the same country. For example, the joint owner of a patent in the U.S. can license its rights exclusively without any obligation to the other joint owner. On the other hand, joint copyright owners may license exclusively yet still be required to account for profits to the other owner.

Joint ownership also affects future litigation because joint owners are often considered a necessary party to any lawsuits. Call a lawyer on this one.

Technical Support. If one party is a small business, it must carefully allocate its limited technical resources without peril to its current business. It also may wish to recover its expenses for providing technical support and to limit the scope of support to a fixed schedule.

To be successful, the collective interests of each party must be balanced by the individual objectives, skills, and resources of the parties to the alliance. It is critical to remain flexible and creative in addressing these issues.

R&D Consortia as a Business Strategy

The big bang theory holds that the universe was created from a monstrous explosion eons ago. There's a similar theory evolving financially. Known as the Big Bang Theory of Modern Economics, it holds that we expect the best value for every dollar we spend—the biggest bang for the buck.

This theory drives business decision-making today. In fact, it is driving business decision-making to the point where businesses are killing themselves by focusing on the short-term, present bottom line at the "expense" of their futures.

Corporate decision-makers enslaved by the "bottom line" have all too often sacrificed R&D to ensure favorable balance sheets. This short-term adherence to the pressures of toeing the bottom line mortgages the future of the enterprise. In today's technology-driven global economy, failure to invest in R&D is a prescription for extinction.

Fortunately, there is a way of maximizing the amount spent on research and development—and guaranteeing a return—without destroying the bottom line. It comes in the form of R&D consortia.

Consortia are a bargain. They offer one of the most cost-effective means to conduct essential R&D. Through consortia, companies in diverse industries gain a cost-effective alternative to traditional applied R&D.

Why conduct R&D? Surveys confirm that technology-based firms who pursued applied R&D grew the fastest during the 1980s. Technology, and the products it yields, is a proven opportunity creator. It keeps companies abreast of changes in the world, and allows them to compete effectively with their domestic and foreign competitors. Clearly, applied R&D is pivotal, and is the foundation on which future growth for technology-based companies must be built.

Applied R&D is pivotal to the foundation on which future growth for technology-based companies must be built.

What are the "bottom line" benefits of consortia? The R&D cost/benefit ratio improves substantially in a consortia. For example, a small corporate investment of $150,000 compounds with the contributions of a consortia of 10 members. Consortia members also get the pooled knowledge, resources, and capabilities of the members and, if they're lucky, academic or government lab partners.

When financial, brain power and facility resources are pooled, common problems are identified, attacked, and solved.

Which gets around to another fundamental law of nature—strength in numbers. That strength is vitally important in these cost-conscious times.

What about potential competition between companies participating within consortia? This is not a problem when consortia focus on technology-related issues of common interest. Companies compete on product margin, not on process technology—a fact many Fortune 500 companies learned is difficult and costly to protect.

Generally, when we sit down and talk over the problems within our business, we don't disclose, let alone analyze, trade secrets or problems. This is true within a consortium. Company trade secrets, know-how, and show-how are not shared. Consortia are not encounter groups where we share our innermost secrets. Moreover, choosing to disclose

individual interests rests with each company. A company may decide to share sensitive information if such disclosure will advance its interests—and the interests of the group as a whole. No pressure is placed either way.

Consortia focus on the larger picture: deploying technology, finding ways to remain competitive, streamlining operations, improving efficiencies, and researching the how-to, for example, of basic manufacturing practices that are common to all members.

Members play key roles in developing and applying new technology that may have significant impact both on production and downstream products. In the process, members gain access to newly developed proprietary information that may impact their industry—all while performing R&D at a fraction of the cost of traditional R&D programs.

Two consortia I had the pleasure of forming and managing had a unique partner—a research institute. Not-for-profits can be objective, noncompetitive, and protect and advance the interests of the member companies. Research institutes can put industry in the driver's seat and marry the needs, resources, and capabilities of industry with the brains and talents of the government or universities—the public sector largely created by our tax base.

To stay competitive, domestic business must take advantage of all available avenues to meet the challenges posed by Japan, Germany, Korea, and a host of other nations battling for position in a global marketplace. Our competitors have gained a technological foothold because of the failure of the majority of our companies to match their ability to effectively apply and rapidly develop new technology.

Leveraging financial resources is an essential advantage for firms that occupy niche markets. It is imperative to take a long, hard look into the future and find ways to be competitive.

In these cost-reduction times, the risk/reward ratio requires companies to be lean and mean and have a plan that guarantees the biggest bang for the buck, i.e., value. When small business or industry leaders consider the future, they need to look at ways of maximizing their investment. Joining consortia is an enterprising way to network, pool resources to leverage R&D investment, and apply technology while the window is open.

Consortia are much like wading across a stream—with help. Alone, we face all the risks. We may not know where the water is deepest or swiftest with the result of having our feet swept out from under us. That's what individual R&D efforts can be like—we may even have an idea of where we want to go but the "bottom line" leaves us vulnerable.

Consortia create lifelines of sorts that allow everybody to cross the river at the same time—safely linked in the process. If one partner gets into deep water or caught in the swift current, the other partners can pull them out and try for a safer crossing down stream.

Consortia seek to meet global competition, deploy the latest technologies, conduct ongoing applied research, and strive for continuous improvement among all their business and industry members. The buck can start here.

8

Money - the Glue Holding the Business Together

- Sources of Capital for Small Business
- The Angel Network—Building Infrastructure by Investing in Small Business
- Entrepreneurs Seek Gold in Venture Capital Mine
- SBIR—Government a Willing Innovation Partner for Small Business
- The Banker Is An Investment, Select Him Carefully

We've examined the possibilities and have decided we can maximize our opportunity by keeping the technology in-house. Like Jason, rightful Prince of Greece and seeker of the wondrous fleece of pure gold, how do we then get the money to develop, manufacture, market and sell the product?

MONEY—THE GLUE HOLDING THE BUSINESS TOGETHER

SOURCES OF CAPITAL FOR SMALL BUSINESS

An absolute must before approaching any financial source is a well prepared business plan that shows how the money will be used, and paid back!

George Bernard Shaw wrote that "lack of money is the root of all evil." Lack of funding is the number one reason given for the failure of so many small businesses. Why? Success today hinges not only on providing a quality and timely product or service, but also on knowing how to finance the business. All businesses face critical periods that can lead to temporary cash flow problems. These problems can be anticipated and overcome if the small business owner has a good working knowledge of the available sources of financing.

It's easy to despair when we've struck out for capital at our local bank. Don't. Persist. There are many alternative places to raise money: private, institutional, and government. Some sources may be better suited to a particular need: *inception, survival, growth, expansion, or maturity*. Don't be put off by their size; ask and we shall receive!

Finance for small business may be derived from four main sources: equity, debt, leasing, and grants. Before we examine the more common sources of financing, it's important to clearly understand the difference between debt and equity capital.

In its most common (mortgage) form, debt capital requires a periodic payment of interest and capital reduction, or a lump-sum balloon payment upon maturity. New enterprises, without adequate cash flow, can often ill afford debt servicing that can also adversely affect the balance sheet, and with it, hopes of raising additional finance. On the plus side, interest payments are tax-deductible and equity is not surrendered.

Contrast the trade-off with equity capital financing, which requires an ownership percentage to be given up, but without interest payments (debt service). However, raising equity capital is not without emotional strain on the founder, particularly if the operation of the company becomes subject to the whims of the new partners. Then again, a large stockholder equity can result in a good credit rating. Among the sources for equity capital, we can include the following:

- Ourselves, relatives, and friends (in cash, credit cards, goods, and equipment and services). Most small businesses in the U.S. had their beginnings from this source—*inception*.

- Employee ownership is broadening its base and can lead to increased productivity, pride, and security. Employees can participate via stock purchases, stock in lieu of salary, and even by providing personal equipment. Employees can also provide direct loans or loan guarantees—*inception, expansion, survival.*

- Successful entrepreneurs and wealthy individuals often wish to get in on the ground floor of a new or expanding enterprise. They seek growth beyond traditional returns or tax write-offs to charge against other disposable income or capital gains. In the U.S., these individuals are often called "angels"—a term borrowed from show business, where it is used to refer to the investors who put up the money for theatrical plays. Angels are investors who typically have $50,000 to $100,000 to invest and prefer a hands-off approach. Contact used to be made by referrals from CPAs, attorneys, and business incubators. More recently, groups in several states, including Texas, Massachusetts, Arizona, Missouri, and Kansas, have set up Venture Capital, or Angel Networks. The networks seek to match investor, entrepreneur, and business opportunity—*inception*, *growth, expansion, survival.*

- Customers, suppliers, and sales representatives want to expand their customer base and create new markets for their products. Financing assistance can include extending credit, guaranteeing loans, making direct loans, purchasing new stock, and lending/leasing equipment—*inception, growth, expansion.*

- Corporate parents wishing to guard against the loss of key employees through entrepreneurial spin-off are adopting an "if you can't beat 'em, join 'em" philosophy by making funds, facilities, and management services available for new ventures—*inception, growth, expansion.*

- Venture capital encompasses a fairly wide range of "risk capital" investments. At one end of the spectrum is seed capital placed into the very newest, very smallest, and highest risk companies. In the middle are first and later rounds of financing for product line additions for established companies. At the other end of the spectrum is "expansion capital" placed into older (5 to 10 years or older), more established (annual revenues $10 to $15 million or more) companies. Pension funds are found here—*inception, growth, expansion.* (For a list of Venture Capital firms, by industry, region, and financing types, consult *Pratt's Guide to U.S. Venture Capital Sources* at the local library.)

- In 1958, congress passed the Small Business Investment Act that authorized the founding of a special class of investment companies, Small Business Investment Companies (SBIC), to make equity capital and long-term credit available to small businesses. SBIC are licensed by the Federal Government's Small Business Administration (SBA), but are privately organized and managed firms. SBIC

recently lost their access to the Federal Financing Bank, but are considering new alternatives in the commercial paper market; these new funds still would be guaranteed by SBA. SBIC are commonly interested in realizing capital gains from the resultant sale of stock—*growth, expansion, survival.*

- Regional development corporations have been set up by most states to encourage the growth of new industries or to help existing industries. In many instances, financial assistance is available for situations where banks and other conventional lending institutions are not willing to participate—*growth, expansion, survival.*

- Retained earnings may offer a higher rate of return than more conventional investments and may often be the only alternative when a new product is introduced to the market—*inception, growth, expansion.*

- Government grants (local, state, and federal) are available through programs such as the Small Business Innovation Research Act (SBIR). Funding up to $50,000 may be made available to confirm the feasibility of a new idea. These programs are sponsored by government departments, e.g., the Departments of Defense and Energy—*inception, survival.*

- The public offering: the ultimate fantasy. If we thrive on pressure, enjoy risk, and admit the possibility of having to give up control of our company, this may be a valid option to consider—*expansion, maturity.*

Turning now to potential sources of debt capital, there are the following:

- Commercial and Industrial (nonchecking) banks, and Savings and Loan Associations offer a plethora of debt financing. Financing includes personal loans, secured credit lines, unsecured credit, and term loans. Term loans cover short- and long-term financing for established businesses with qualifiable risk—*growth, expansion, survival, maturity.*

- Institutional lenders, such as commercial-finance (General Electric, Chrysler Capital Corporation) and insurance companies have historically been a major source of long-term debt financing for industry. Investment standards are very high, and new or speculative ventures are rarely considered; public utilities, major corporations, and industrial bonds are their preferred vehicles of investment—*expansion, maturity.*

- Accounts receivable financing and factoring. Factoring companies trace their origins back some 150 years to the textile trade in Europe. Today, they are associated with the financing of trade receivables. A manufacturer assigns the receivables to a factor and receives a cash payment with a reserve payment set aside. After the customer pays for the product, the manufacturer receives the balance due less the factor's discount and interest on the funds advanced (often a

hefty 20 percent). Still, unlike the more traditional bank financing, the manufacturer pays only for what he needs—*growth, expansion, maturity.*

- The U.S. SBA offers direct, guaranteed, and 504 Certified Development Company (CDC) loan programs. CDCs can provide long-term fixed asset (up to $500,000) financing through SBA guaranteed debentures to small business. For inception, the SBA also offers LODOC or MicroLoan programs–up to $25,000. SBA programs generally require a personal guarantee from any investor with more than a 5-percent stake in the business—*inception, growth.*

- Mortgages on buildings and homes are often used to secure loans. Be sure this is a sure thing before risking primary assets—*inception, growth, expansion, survival.*

- Manufacturers and other suppliers may ship goods on extended credit terms. They may even provide the new company with direct or guaranteed loans to establish the enterprise or to support it during lean times. These relationships typically fall under the catch-all of strategic alliances—*inception, growth, survival.*

- Government issued (local, state, and federal) loans and grants, such as Industrial Revenue Bonds, may be available to encourage new initiatives. Write to the SBA for a copy of the *Directory of State Small Business Programs*. Assistance also may be available from other government sources such as the Departments of the Interior and Housing and Urban Development—*growth, expansion.*

- Sellers may even self-finance the sale when traditional financing is unavailable or unattractive—*growth, expansion, maturity.*

Leasing can be very attractive to small business because it can provide capital assets with little or no initial investment. Products manufactured with the leased asset may provide sufficient cash flow to meet the leased payments. Typically, while the total payments over the lease period, plus the optional buy-out amount, can add up to twice the original purchase price for the equipment, the small business person may have no other choice—*inception, growth, survival.*

Another variation of leasing is the sale-lease back plan. Equipment that has already been purchased is sold to a leasing company and then leased back to the original owner. In this way, the small business acquires cash, which may be sorely needed for working capital, in exchange for the equity in the equipment—*growth, survival.*

Finally, an absolute "must" before approaching any financial source for capital, is a well-prepared business plan that documents how the funds will be used, secured, and paid back!

THE ANGEL NETWORK—BUILDING INFRASTRUCTURE BY INVESTING IN SMALL BUSINESS

The lament is heard nationwide. If we're an entrepreneur or start-up company, the seed money needed to get our business up and running is hard to find and even tougher to get.

With banks avoiding this early stage financing, and established venture capital firms favoring larger investments in more established companies, we can fall between the cracks.

Enter the "angel" from stage left. As mentioned previously, angels are private investors who have made it to the top of the hill and are willing to invest capital in new entrepreneurial businesses.

More recently, enlightened community leaders have recognized the importance of the contribution of entrepreneurial small businesses to their communities. They have established networks to facilitate the marriage of innovation and money. Getting new companies started is a key ingredient to economic growth in the current administration's plan to jump-start the U.S. economy.

The Silicon Prairie Technology Association's Capital Resources Network (CRN—Kansas City, Missouri) is a more recent example of this type of approach. CRN is looking to build a database of 200 investors, the majority of whom will be individuals. The rest would be from the traditional group of lawyers, bankers, and accountants looking for investment opportunities for clients.

The network made its first match in January 1993 among four investors and American Echo, a firm making examination tables for cardiac patients undergoing ultrasound diagnostic tests. Although started in 1988, the injection of $500,000 (partly from the network) would accelerate American Echo's product development, sales demonstrations, and marketing activities. CRN looks for matches that return a profit in the 5-year range. Its start-up costs are underwritten by the Ewing and Marion Kaufmann Center for Entrepreneurial Leadership and several Kansas City companies.

The majority of these matchmaking services are nonprofit, regional organizations. For a small fee, they assemble information from local companies seeking investment and then pass this information along to potential investors in their database. Interested investors, in turn, contact the firms they find most promising. One of the more active networks, the Texas Capital Network in Austin, has over 100 active investors. Angel networks are getting even more attractive as they extend their reach. A group of them, led by the Texas Capital Network (TCN), is organizing a network that may eventually operate nationwide. This "consortium" could link as many as 12 different networks with as many as 2,000 investors.

The concept of these networks has been around for over a decade with groups such as the Enterprise Corp. (Pittsburgh, Pennsylvania) and The Venture Capital Network at MIT (Cambridge, Massachusetts), which is one of the most reputable and covers 21 industries. Networks are extensions of "matchmaker services" of which there are about half a dozen nationally. Xantrex (Dallas, Texas) is one of the largest with a database of 23,000 potential investors and its services sold through 65 representatives in North America.

What is new is the recognition of the need in communities to fund the smaller $200,000+ investments by bringing the underground angel investors to the surface. Capital markets are reluctant to fund this level of investment because the returns on such small loans may not bear fruit and the risk is high. Angels may also be identified by approaching the various Small Business Development Centers.

Of course, this leaves a hole in the true "seed" capital stage—up to the first $50,000. No group is actively meeting this need. What is needed is a "blind" seed fund underwritten by the public/private sector. Its advisory board would have the ability to evaluate and recommend worthwhile business ideas and innovations. Business incubators, such as the Arizona Technology Incubator in Phoenix, are good informal targets to arrange funding for this unserved part of the market.

ENTREPRENEURS SEEK GOLD IN VENTURE CAPITAL MINE

The market is up, but Dunn & Bradstreet reported 71,194 U.S. businesses failed in 1995. The soothsayers are out with doom and gloom predictions. The big players are looking for new opportunities to land their money that flew from the market. Small businesses need to find new products to survive, but first have to find the gold mine to provide the start-up capital. The people with the start-up gold are called venture capitalists.

The relationship between venture capitalists and entrepreneurs seeking funds is sometimes ghost-like. Each may be aware of the other's existence, but they fail to connect. Often, this misnetworking develops because the venture capitalist is inundated by ill-prepared entrepreneurs. Being prepared can move a small business or entrepreneur to the head of the line quickly. Okay, so how do we prepare? We analyze every conceivable aspect of the proposed venture.

Venture analyses can take many forms. Often a venture analysis (due diligence) includes answering a critical question related to the potential for success. These components might include the following:

- *Market Analysis* - is there a market, what is its size, who or what is the competition?

The relationship between venture capitalists and entrepreneurs seeking funds is sometimes ghost-like.

- *Financial Analysis* - is the venture cost competitive and profitable?
- *Market Entry Requirements* - are there preferred methods of marketing and distribution? Are there regulatory requirements, key personnel requirements, etc.?
- *Strategic Business Plan* - what are our business goals? How do we capture a given market?

Venture analyses are not reserved for high technology opportunities. They are useful whenever an entrepreneur or small business is considering a new opportunity.

Venture capitalists consider the following the most essential criteria for a successful venture:

- The entrepreneur is capable of restrained yet intense effort.
- The entrepreneur is thoroughly familiar with the market targeted by venture.
- There is at least 10 times the return on investment in 5 to 10 years.
- The entrepreneur has demonstrated leadership in the past.
- The entrepreneur is able to evaluate and react to risk well.
- The investment can easily be made liquid.
- The target market enjoys a significant growth rate.
- The entrepreneur has a track record relevant to the venture.
- The entrepreneur is articulate in discussing the venture.
- The product is proprietary or can otherwise be protected.

At least three subsets of new venture financing have evolved. The first is seed capital, which is required to reduce a technology to a commercial product and, as well, to perform a venture analysis. Seed capital carries with it a high risk factor. The second type of new venture financing is risk capital, which is required to complete the venture analysis and develop the necessary resources—plant, facility, human—to enable commercialization. Finally, to provide the added financing required by a growing new venture so it can expand and meet its full market potential, one needs venture capital.

It should be clear that the risks associated with each subset of financing decrease as time passes. Whatever the type of financing, the venture capitalist who provides the resources is an important participant in the entire chain of events.

The venture capitalist might be a firm set up for the sole purpose of financing new ventures. The venture capitalist might also be a conventional bank and/or an SBIC, an insurance company, or a large industrial firm. Any financing entity requires a well-developed business plan before it will support an application for financing.

Why should new ventures and venture capital be important to the economic development of any region? A large portion of any area's economic growth comes from expansions of existing firms and the creation of new small business. Sometimes, this growth is in the form of spin-offs from larger parent companies. The creation and nurturing of new ventures is important because they can contribute to an area's economic growth.

As in many regions of the country, the U.S. Midwest's needs for this type of financing is not met completely by local sources. Many people must seek funding from financial centers such as New York, Boston, San Francisco, Chicago, or Denver.

In the U.S., many metropolitan areas suffer from a financially conservative posture. Financial institutions historically have preferred to loan money to traditional operations or operations with which they have a funding history, rather than to new or riskier operations. Being risk adverse is natural. In view of this, therefore, the entrepreneur or small business who seeks the capital must address the skepticism of the financial community through careful planning and preparedness.

SBIR—Government a Willing Innovation Partner for Small Business

Small business has created almost 12 million new jobs from 1990 to 1994, whereas Fortune 500 companies have laid off 3.8 million people in the same period. Most of these new jobs were created by people with a vision and a new idea or service and were driven by the fuel of their own sweat equity.

Before 1982, small business was largely left to its own means and ways to innovate new products and services. Funding was provided by personal sacrifice, a benevolent investing angel, or for the fortunate few, seed venture capital. Enter the government bearing large gifts for small business.

In 1982 the Small Business Innovation Research program (SBIR) was created. Public Law 97-219 was passed to stimulate technical innovation, to induce small business to

meet federal research needs, to increase private sector commercialization of innovations derived from federal R&D, and to foster and encourage participation by minority and disadvantaged persons in technological innovation. This public law requires that all federal agencies with outside R&D budgets in excess of $100 million must award a portion of their funds to smaller companies through grants.

By law, the following federal agencies were included in the 1986 SBIR program: Department of Defense, National Aeronautics and Space Administration, Department of Energy, Health and Human Services, National Science Foundation, U.S. Department of Agriculture, Department of Transportation, Department of Commerce, Nuclear Regulatory Commission, Environmental Protection Agency, Department of Interior, and the Department of Education.

How does the SBIR program work? The SBIR program consists of three phases: Phase 1 (Idea Stage) provides for up to $50,000 for 6 months of feasibility related experimental or theoretical research on topics of significant interest to the government; Phase 2 (Product Stage) provides for up to $500,000 for 24 months of related R&D for those projects found most promising after Phase 1 and is intended to finance prototype developments; and Phase 3 (Business Stage) funding, the actual commercialization stage, comes from the private sector.

Has the SBIR program been successful? In 1994, the last year for which data was available, 4,030 grants were awarded, amounting to $717 million compared to just 686 grants totaling $44.5 million in 1983, the SBIR's first year.

What's ahead? The government still wants our help to research the topics of interest such as life sciences, behavioral science, training projects, software, engineering, instrumentation, physical science, chemistry, and electronics.

How can we obtain further information on the particular agency topics? The easiest way is to write or call our state representative or regional Small Business Development Center. Alternatively, write to the SBA and ask to be placed on their master mailing list. This will ensure that we receive information about the SBIR program in general.

To get specific topic information, write separately to each agency and ask to be placed on its mailing list.

What are the actual mechanics of the program? SBIRs are competitive award programs and operate as follows:

- Each government agency in the program publishes annual solicitations describing its areas of research interest together with the proposal format it will accept and an application deadline.

- Companies or individuals submit written proposals for research projects on one or more of the published topics.

- Each agency prescreens the proposals and follows up with peer group reviews and funding recommendations.

- Grants are then awarded to the proposals considered to provide the best R&D investment and commercial opportunity.

The whole process takes about 6 months from proposal submittal until obtaining a Phase 1 grant with a further 6-month lag for Phase 2 approval. Be patient. The bureaucratic process takes time.

Before deciding whether or not to compete for these funds, consider how closely the company's capabilities match those required to undertake the announced SBIR topic; if the company has the required people on staff, especially an experienced investigator; and whether or not the company possesses the resources that are necessary to prepare a winning proposal.

Successful proposals follow the prescribed format and demonstrate the commercial potential of the proposed research.

Frankly, the hardest part of participating in the SBIR program is writing the proposal. Proposal writing is an art, but an art that has been mastered by the Silicon Valley companies. Typically, successful proposals are those that follow the prescribed format, emphasize experience on similar projects, discuss the company's plan and capabilities to successfully accomplish the project, identify experienced people to work on the research, and demonstrate the commercial potential of the proposed research. Keep it simple and eliminate jargon. One final point—the proposal must be 25 pages or less.

How will your proposal be evaluated? A Department of Health SBIR solicitation published the following criteria:

- Soundness and technical merit of the proposed R&D—40%

- Qualifications and experience of investigators—30%

- Potential for technical innovation—20%

- Facilities and equipment available—10%

How can the company obtain the rights to any inventions it develops if it is using the government's money to innovate? The pay-off under the SBIR program is that the

company may retain the commercial rights to any patents and/or intellectual properties developed with SBIR funds. In exchange for the company's talent and time, the government retains a nonexclusive royalty-free license to these rights, as well as certain "march in" rights to ensure commercialization. The rest is the company's to keep, license, or sell. Rights to any technical data developed also belong to the company.

How does the company qualify? To qualify for SBIR funding, a firm must satisfy all of the following criteria at the time an award is given: be a for-profit, independently-owned and operated U.S. entity with 500 or fewer employees.

Public or privately held corporations, sole proprietorships, or partnerships may apply. Even applications from joint ventures are accepted provided the resultant entity qualifies as a small business under government regulations. These regulations are published in the Federal Register, the government's bible.

The technology needs of small business are no fewer than those of major companies, yet the risks of survival are greater. Why should we miss out on a valuable source of R&D funds to develop new products for our company? Protect the company's profits and future by letting the government help us be a winner in the technology game.

THE BANKER IS FIRST AND FOREMOST A LENDER!

Most small business people know from experience that a bank's willingness to lend money does not always correspond to the time when it is urgently needed.

Adam Smith wrote: "It is not by augmenting the capital of the country, but by rendering a greater part of that capital active and productive than would otherwise be so, that the most judicious operations of banking can increase the industry of the country." Bankers are professionals in their own right, but unlike the advice a CPA and an attorney sells us, the banker's stock-in-trade is cash, the fodder of industry. The banker's resources are indeed limited and the banker's job is to tender sound advice and to make those loans that ensure the most productive return at the least risk.

As custodians of other peoples' money, bankers' fiduciary responsibilities require them to be inherently cautious in their business activities. Contrasting this quality with the risk-taking opportunistic character of the small business person we'll understand the fundamental cultural differences. Comprehending how the banker thinks is key to establishing a professional relationship.

Ironically, most small business people choose their bank first and their banker second. Selecting our bank involves the same process used in reviewing any commercial enterprise wishing to serve us: specific services (payroll, night depository, etc.),

convenient location, established reputation, and general lending policies. Selecting our banker requires just as much care.

Retaining A Banker. As an expert and experienced business counselor, the banker will play an important part in the company's future. Since the banker is going to be part of the management team, be prepared to make an investment both in time and in a long-term relationship with the banker. We should interview the banker just as we would any key employee for the company:

- Is the banker sincerely interested in the business? Is the banker eager for the company to grow and willing to grow with it?

- Is the banker familiar with the business? A lack of knowledge on the banker's part may hurt the company in several ways: a greater time commitment requires on our part to bring the banker up to speed with the business and, human nature being what it is, a natural suspicion if he or she doesn't understand the business. Can the banker's insight and experience be a valuable resource for the company?

- Is the banker progressive? Does the banker have a history of making loans to small business? Is the bank a relatively aggressive lender or is it given to excessive passivity and low loan/deposit ratios? Where does the banker sit in the bank's management chain?

- Is the banker helpful? When lending policies preclude the banker from part of the business, will the banker refer us? Will the banker provide credit information on our customers and suppliers? Does the banker have a knowledge of small business programs such as SBICs and SBIRs?

Building Collateral. Visit the banker frequently and keep him/her fully informed about the business. Invite the banker to the facilities, send new product or service announcements—remember the banker is on our team. Ask the banker to review company financial and business plans and discuss the prudence of hopes and dreams. It takes time to build a relationship, to instill confidence. Don't blow it by failing to be candid about shortcomings! Bankers don't like surprises!

Most small business people know from experience that a bank's willingness to lend money does not always correspond to the time when it is urgently needed. The balance sheet is also a candid snapshot of the company credit rating. Remember always that the bank is first and foremost a lender, not an investor. Bankers take enough heat without overlooking this very basic consideration! A strong and lasting relationship with the banker can keep the wolf from our door in a dire emergency.

Cashing In. When we do approach the banker with a loan or credit package, we must be sure that our request is sensible and reasonable both in funds sought and the risk involved. Demonstrate professionalism by putting together the package with a clear statement of how the proceeds will be used and how they will be secured and show concisely how financial projections will ensure repayment.

Bankers like and need numbers to buttress their lending decisions. Check the *Robert Morris Associates Industry Averages* for the business. Take a look at the quick ratio, sales/receivables, cost of sales/inventory, sales/payables, inventory turnover, and the aging of accounts receivables and payables. Run the numbers—the banker will!

Use a common sense approach in preparing to meet the banker to discuss business needs:

- Do schedule an appointment and mail loan packages several days in advance.
- Do allow plenty of time to discuss the proposal at length and answer the banker's questions candidly.
- Don't, repeat don't, ask how much money the company can borrow or professional credibility just flew out the window!
- Don't make promises the company can't keep.
- Don't spend money before the application is approved and don't wait until the last moment when creditors have the company in dire straits.
- Don't let someone else be the company mouthpiece. Remember, we must demonstrate the ability and, above all, the understanding to manage our business!!

The banker can and should be one of the company's key business advisors and supporters. Make sure the banker is a friend indeed and not a friend in need!

9

People – the Yeast to Grow the Business

- Numbers Count, but Leaders Can See More
- Geometry Draws Lines of Authority
- Schizophrenic Leadership
- Communicating Basics
- Key to Communication: How Do Others Hear the Message?
- Employee Enthusiasm
- Musings on Selling
- Personalities for Sales
- Interns Can Spark the Business
- Hiring the New Graduate

The best and bravest of Greece's young men, the Argonauts, drawn by the adventurous spirit of Jason, joyfully joined him in the quest for the Golden Fleece. Now that we've got the money, who's going to lead, manage, advertise, promote and sell?

PEOPLE—THE YEAST TO GROW THE BUSINESS

NUMBERS COUNT, BUT LEADERS CAN SEE MORE

There is one other factor that we always tend to forget—common sense.

Consider the quandary that arises when an outstanding employee is promoted to a position whose title includes the magic word "manager." How do we know this person has what it takes?

Oddly enough, despite all the literature on management, we know little about management as a skill. Some of the abilities involved include having people as well as executive skills. Among the executive skills, is the ability to make decisions.

Too often we all want to defer a decision because it is unpalatable or difficult to face. Of course, there are a number of ways to defer decisions, the simplest being to either hold a meeting or form a committee. I'm not suggesting that all decisions should be made on the spur of the moment. Decisions require a data collection exercise to cover all of the bases—but eventually, somebody has to decide.

The trick, of course, is to find a natural balance between impulse and thought—the old 80/20 rule. We can probably get 80 percent of the information in 20 percent of the time. I am a great believer in the idea that the power of decision is in inverse proportion to the amount of money it takes to change it.

Technical Skills. On the technical side, we are required to take a hard look at what industry the manager is going to function in. I guess this is why very often we promote good technical and sales people out of their trained field into a management role in another part of the company. A good background of commercial or industrial practice or a good knowledge of the business will certainly help a manager. In many cases, specialized knowledge has been the stimulus that has propelled individuals into a management position. In many instances, this elevation has left the individual a little insecure because it doesn't answer two key questions: was the promotion based on management skills or specialized knowledge and which set of skills will be used to judge performance. This leads to the familiar "If I'm so successful, why do I feel like a fraud?" syndrome. These issues are often not resolved until the individual moves into a new field and gets to learn that, indeed, people and executive skills are transferable.

With the technical skills, we also should include the ability to organize and control the scheduled activities and, of course, to report results, good and bad. It is imperative that we endow our people with the ability to use the latest resources available to them, whether it is critical path management, telemarketing, direct mail, or the Internet, all of which allow us to better use our time and increase our productivity.

There is one other factor that we always tend to forget—common sense. It is imperative that whether we have great technical skills, great interpersonal skills, or sound technical training that we temper our own abilities with common sense. Too often we go with the numbers and disregard our gut instincts, often to our detriment. The numbers never tell the whole story. Numbers, by their nature, are a balance sheet of the business—fixed at a definite period in time. While they can definitely establish trends, they are not the whole picture. We need to look further afield. I guess this is where the essential difference occurs between a manager and a leader. The leader has the ability to look beyond the numbers—to think in broad picture outline, uncluttered by detail. The leader also has the ability to develop the elements of the business independently rather than flesh out elements designed by somebody else.

Becoming a manager is tough because it requires that we turn our attention to a wider range of skills and involvement. In developing a new manager, we are required to assess the individual and design a program that will guide that individual along the right path. We add the talents and skills needed to do the job as the new manager develops. I prefer an apprenticeship approach with 80-percent on-the-job training and 20-percent courses and industry trade association activities.

In making an assessment, design a simple chart that includes technical abilities, staff and peer relations, flexibility, and decision-making ability as an aid in evaluating management candidates. Finally, don't forget to get some help. There are many talented human resource people who will be only too willing to share their views on how to develop management from within.

GEOMETRY DRAWS LINES OF AUTHORITY

Understanding management theory can sometimes be reduced to a matter of geometry. We conjure up organizational images of different shapes—some circular, some triangular, some square, and some oblong. We speak of square pegs in round holes and patchwork quilt structures. U.S. organizations are pyramids by nature.

Power is concentrated at the top in the typical U.S. company. The right and authority to make key decisions rests squarely in the hands of the person who sits atop the pyramid structure. For decisions of decreasing importance, the power to decide moves further towards the base of the pyramid. With such a structure, the decision-making process can be swift and decisive. It is a relatively simple matter to get the top people together to consummate a business deal.

In Japan, to contrast, decisions are not necessarily made at the top. On paper, the typical Japanese company organization chart may appear not to differ in function and layout from a reengineered U.S. company. Separate general administration, manufacturing, sales, and R&D departments are managed by middle level managers who

report to the president and up the line to the chairman. Within this familiar looking shell, however, there are great differences in how the organization functions and how power is exercised.

Whether in government or private industry, power in a Japanese organization is decentralized into a number of parallel paths to the top, hence an oblong image. Each middle level department manager usually is given complete control for each project under consideration.

The wisdom of conventional western management by objectives teaches that younger, lower ranking managers must wait for guidelines and instructions to be passed down from superiors. The opposite is true in Japan. Indeed, more new initiatives come from below, with proposals and plans often originating at comparatively low management echelons. Certainly many matters are left completely up to the many section managers who exhaustively study each project and recommend a plan of action to the others. This horizontal consideration of each matter, which takes place with and through related sections or departments, results in adjustments to the overall plan. This consensus procedure lays the groundwork either for a complete program or a final draft to be prepared and presented to top management. Concurrence is then obtained by passing the actual draft about for everyone's signature, and sealing with each name stamp.

Although the final seal (power) of authority and approval resides with top management, the right to initiate and propose is held by middle management. This approach encourages considerable initiative on the part of lower management. Unlike those in the west, few supervisors feel insecure or threatened by the brilliant performance of their junior people. Rather, they are generally securely locked into their jobs by lifetime employment and seniority, and a subordinate's success will favorably reflect upon the superior. The quality circle concept, introduced to U.S. managers in the 1980s, is probably the best example of this process. In Japan, the cultivation of future management talent is very much in the forefront.

The division of responsibilities and rewards also tends to decrease counterproductive personal, professional, and interdisciplinary rivalries. Staff and line management functions are combined. Proposals are passed gradually up the management ladder to the CEO, provided there are no major snags or complications. In this manner, all levels are aware of the objectives and requirements of the proposal, so the final approval is almost a foregone conclusion. While it takes time to get the final go-ahead, the groundwork of approval and wholehearted support has already been gained in the trenches. Contrast this process with the U.S. system. Swift decisions made at high levels can bog down during the execution and detail phases at the lower levels of the pyramid.

Which system is more efficient for small business? There is no right answer since each project is unique. Certainly, the Japanese decision-making method is more effective in

terms of cultivating people initiatives and coming up with the best, final plan with a far more company-wide perspective. While the consensus building approach is a proven model for most emerging businesses (the rationale why VCs invest in management teams), there is also the clear exception in fast-moving, ever-changing technology industries such as computer networking and telecommunications. Novell and Motorola, two acknowledged leaders, continue to post disappointing financial results. In such cases, a clear case can be made for a return to a "dictatorial" CEO—the strong leader with the vision and drive to respond swiftly to market forces. We use a subset of such an approach in requiring all the equity deals Fluor Daniel considers to be sponsored by an "advocate"—someone who takes ownership, and accountability, to identify, evaluate, and create the business.

SCHIZOPHRENIA LEADERSHIP—WHOSE SIDE ARE YOU ON?

We've seen those individuals that tend to play both sides of the street and often, both ends against the middle—those middle managers who exhibit schizophrenic leadership!

Typically, these schizophrenic middle managers claim upper management is not always in tune with what they are thinking and feeling. Sometimes they are right! These people who feel this way often hold jobs that interface with customers such as sales, marketing, or service. There is little incentive for them to play the company game because their compensation package often includes a bonus based on a percentage of sales, not a share of gross profit. So there is more incentive for them to play the individual game.

- Fact—good sales people spend more time with customers and less with management.

- Fact—in the interest of successful sales, they push aside psychological needs such as fairness and job security.

- Fact—it's often hard for sales people to see any real career path and chances for advancement.

- Fact—salespeople are out on the front line; getting the credit for the major sale to be sure, but also taking the abuse from the customer when things go wrong.

In general, to be successful in sales or marketing, people have to be able to play different roles within and without the company. In common with psychological schizophrenia, they develop multiple personalities. These personalities can be very diffuse with wild mood swings—to neurotic, depressive, euphoric, and normal. The most famous cases come from literature and film: *Dr. Jekyll and Mr. Hyde* and *The Seven*

Schizophrenic managers claim upper management is not always in tune with them. Sometimes they're right.

Faces of Eve. This often means that they must be both sympathetic and sensitive to the customer's needs and at the same time loyal to and frank with the company.

It is when these people cross over the sympathetic line and adopt the advocacy role that we see schizophrenic leadership in practice. On returning to home base, the advocate is faced with a direct conflict of interest. The customer has made certain demands which, if they weren't refuted on the spot, now place the individual in the situation of having to support the customer, literally against the company. Consider further the exacerbation caused by compensation based on gross sales and the individual's lack of interest in gross profit to the business.

These people find themselves between the proverbial rock and the hard place when management asks seemingly straightforward questions about the business opportunity. Questions such as what is the status of the job?, What are our chances of getting the job?, and How much money do we stand to make from this job? are all legitimate inquiries from company management. But if the individual is insecure, or inexperienced, or has handled the customer situation poorly and in the process has become the customer's advocate, we've also got the CYA syndrome. The double whammy—both income and job are squarely on the line!

Now the individual must sell the company on the customer, which is clearly the reverse of what the company hired its representatives to do. What we see are individuals attempting to placate two masters, and wisdom says we can't serve God and Mammon. Stated otherwise, which hand are we going to bite, the hand that feeds us on a regular basis or the hand that feeds the other hand.

Clearly, the employee we're describing has developed divided loyalties and has gotten into a conflict of interest situation. The question now is, how should the company respond in the future to guard against a repeat performance?

Company management needs to have frequent and serious discussions with its sales and marketing representatives, provide plenty of training, and have policies that are hard and fast. The message from management must be cross the line at our peril! Policies and procedures must be defined with regard to pricing structure and the limits of authority to set price, such that the sales and marketing representatives are not able to offer price discounts outside of these guidelines without additional authority. Also, there needs to be some counseling as to why the company's position is reasonable. Err on the side that management does understand, all too well! Preach that the company will not tolerate this type of behavior and reinforce the line that the company is in business to make profit after all. Furthermore, each project must be considered on a separate, profitable basis, ensuring that the aggregate contributes to the total profit!

In turn, of course, this means that the company's compensation structure must be such that it sufficiently rewards those who perform and, at the same time, set clear standards by which the individual, and the company, can assess performance. These standards should be objective so that compensation is not based upon the whims of particular managers.

Schizophrenic leadership can be seen operating at the highest levels of the kingdom. Consider the case of the CEO who has delegated his responsibility for decision-making to group consensus and, because of an ego problem, takes back the responsibility—changing horses in mid-stream. A close stepchild of this situation is the schizophrenic who abuses power. This behavior is typical of the owner/partner who wants to play on the team for eight innings but then pulls rank on a junior at the eleventh hour if the project isn't going down the right way—their way! Picture the effect on employee morale that a lack of direction, or basic breakdown in communication, causes. Wimpy management won't cut it!

It is better to nip the schizophrenia problem in the bud, through frank and open communication, than to lose customers, and key employees, along the way.

COMMUNICATING BASICS

It seems a fairly simple thing to do—communicate. Sit across the table and communicate ideas in speech or prose to others. To a leader, it is essential to be able to communicate the vision. To the manager, it is necessary to gain information and to communicate instruction and direction. Yet, we often fail, and fail miserably, at this simple task.

In selling, three product features and benefits convey credibility.

Two factors have heightened my sensitivity to communicating clearly and concisely: my understated Aussie accent and my experiences with non-English speaking nationals. Accents can be both endearing and harmful. Occasionally, listeners want to listen to the accent and not the message. If I emphasize the wrong syllable during enunciation, I can lose the listener in mid-thought. Interestingly enough, my accent was an advantage in working in Europe and in Asia since English-ese predominated over American-ese. (This was aside from the fact that my Australian passport guaranteed me a much better reception since very few people are mad at Australians.) During this time, I started working with translators and developed the following tips to remember when communicating with a non-English speaking person (or any person for that matter).

Talk Directly To The Person. Look directly into the other person's eyes while conducting the conversation. We have a tendency to treat those we can't understand in an

inappropriate manner—we try to ignore them. Whether we are talking through an interpreter, or a middle person, ignore the third parties. They don't make the decisions.

Speak In Complete Thoughts. Speak in a simple paragraph form, breaking the train of thought where we might end a written paragraph. Interjections, pregnant pauses, and flurries into left field will dilute the logic and the message.

Set An Agenda Early On. Particularly with strangers unfamiliar with our business style, indicate both the nature of the topics and how we would like to address them. People feel a lot more secure if they feel they have us pigeon-holed. Conversely, raising new topics and special terms breeds suspicion and jams communication.

Be Prepared To Explain. Never assume the listener is as familiar with the topics as we are. Our job is to share information with our listener, which in some cases requires us to educate, in others, to amplify. Be prepared to cordially answer both basic and probing questions in the same affable style. Don't brush any question aside lest we insult the listener and immediately crash and burn.

Speak Clearly And Deliberately. For our sake and the listener's, we must take time and pronounce our words clearly so the audience can follow along. This is particularly true with numbers (e.g., 17 versus 70) and with proper nouns. I'm often guilty of getting excited about my subject and expecting my audience to immediately grasp every complexity and every detail. Conversely, don't have the audience hanging on every word—they'll die of frustration before we get to the climax. My own maxim is my own medicine—remember to engage brain before opening mouth! For me, this often means taking a deep breath before responding.

In dealing with foreign nationals, remember that most will be able to read English, a few will speak reasonably good English, but very few will understand the usual rapid-speaking American. Just because someone speaks English is not an assurance they understand our spoken words. If we ask a question and receive an answer, we must not assume that full understanding has been reached. Sometimes "yes" is more or less equivalent to "I heard what you said." Rephrase the question and ask it again a little later. Repeat the process, approaching the question in another way. This must be done tactfully, but is essential if we want to reach a full understanding.

Shorten It. Whether we're delivering a speech or pontificating on a particular point, it's always better to bow out gracefully rather than cram too many ideas into too short a period of time. Not only will our audience love us, but they are more likely to recall three key points instead of 30. Einstein, paraphrased, said that things can only be reduced to their simplest state and no more. In selling, three features and benefits convey credibility; two are weak and four or more sound like we're pushing the product.

No Colloquialisms Or Jargon. People probably aren't all that familiar with lorries, lifts, and the Black Stump unless they are from Down Under, too. CYA, SOL, SOS, and SSDD probably will trouble them for a bit also. As Joe Friday said—just the facts ma'am. We need to stick to the basics without fodder and dressage or we'll put our foot into something worse than our mouth.

Make Jokes, But No Puns. Jokes are difficult to deliver unless they can be worked in concisely to emphasize the point. Humor cuts two ways: either it will help the audience remember a key point or it will offend and we will lose the audience. How good can a joke be if it has to be explained? Puns, on the other hand, most often require an interpretation to get the point across. Puns never wash well in a foreign language. We can pay dearly if we deviate from straight prose.

Summarize. When confronted with a difficult or intense subject, ask to have the meeting in a room with a chalkboard. Write down important points. Everyone in the audience will have a better chance of understanding. Furthermore, everything written on the board can be copied down to study (or interpret) later.

Be Prepared. Come with plenty of copies of a summary of the main points in typed form to give out following the presentation or to refer to during the presentation. We always structure our technology presentations in this fashion. Not only does it help lead the conversation, but more importantly, we have a permanent record of what we said—before we say it.

At the end of the meeting, write down the major points and the actions expected from each side and promptly follow these up in writing. Find out from the host where and to whom further letters should be directed. It probably will not be the person on their side who has done all the talking, so don't be misled—ask!

One last tip to help accomplish the sometimes difficult task of terminating the meeting without being abrupt or offensive, simply rise, signifying the meeting is over and it is time to leave.

EMPLOYEE ENTHUSIASM

Seven hours and 21 minutes: the amount of time a corporation typically pays its employees every day. More to the point, its the time the employees sell to the company. At 5 minutes to quitting time, they're lined up at the door for the daily stampede outta here—not a minute sooner or later.

Sometimes we reflect on the 5 o'clock office wasteland and our failed efforts to build loyalty like that described in the articles in *Fortune*. Somehow, the annual Christmas party and the quarterly rah-rahs just don't cut it. We've seen the talented performers

come and go. We wish we had a magic wand to inspire enthusiasm, pride, and a work ethic.

The key ingredient in building a positive performance attitude in people is enthusiasm. This energy makes us feel young and vibrant and ready to face new challenges. Best of all, enthusiasm is contagious. We can't buy it, though, so here's a few ways we can increase enthusiasm in our company.

Leadership. Recall how Ronald Reagan rode to power in 1980 by promising to rebuild the American dream, to make America strong again. People want and demand a leader with vision. Reagan, the Great Communicator, gave them that image. In the process, he rekindled their self-respect, the respect they lost first in Vietnam and were later to lose in Iran. Putting politics aside, we must learn the lessons Reagan taught if we want to instill confidence in the troops. Communicating strength will develop confidence and respect in people and produce results. Help the people improve their self-image and build enthusiasm.

Image. Self-image was a key factor highlighted in *In Search of Excellence*. "We're exuberantly, wildly irrational about ourselves. And that has sweeping implications for organizing. Yet most organizations, we find, take a negative view of their people. They verbally berate participants for poor performance. (Most actually talk tougher than they act, but tough nonetheless intimidates people.) They call for risk taking but punish even the tiny failures. They want innovation but kill the spirit of the champion. With their rationalist hats on, they design systems that seem calculated to tear down the workers' self-image. They might not mean to be doing that, but they are."

Sports taught me caution against embracing the treating-of-people-as-winners philosophy that Peters and company preach. For every winner, there is at least one loser. Hence, when we fire everyone up to think of themselves as winners, we're setting them up for a fall. It is better to emphasize a positive and realistic approach that stresses individual self-worth and caters to the long haul. This will diffuse the inevitable short-term disappointments without destroying the vital confidence factor. People, for the most part, will reach their targets and quotas because we will set the targets and quotas to allow that to happen.

Praise. Everyone likes the recognition that praise confers. It goes deeper into our soul because we feel appreciated. Err on the side of liberal doses for jobs well done, for doing the job in the right way, or even for persevering, and failing, when others might have given up. When people screw up, be swift and merciful in admonishment and hold off on the guilt trip. They know they screwed up, so they expect some retribution. But, help them, and the company, to learn from the experience. People skills are tough.

Bounty. We all need symbols of recognition—things we can display or show others. It's great to be told we are doing well, but it's even better to also receive something tangible to mirror our success. By all means, stage presentations and give out certificates that can be put on the wall, not only to make people feel good, but also to impress company visitors. And remember, most of us keep score in dollars so share the bounty in salary, bonuses, and perks.

Parties. When closing a deal or wishing to honor a department or employee for a particular job well done, have a staff get-together. This can run the gamut from bringing donuts, to a simple catered lunch, to a formal ceremony. Our people need to see that we are as human as the next guy and that we can enjoy ourselves. This will build respect and boost morale within the ranks. The message here is be sure to come down from the ivory tower on a regular basis.

Simplicity. The first item in the annual business plan should be a simple statement of purpose. Remember, the majority of us are not Einstein and we require our objectives to be stated in simple, clear prose. Most people need a simple goal or set of goals. It helps us to focus, generates our interest, and helps us belong. There is no room for mushroom management: keep 'em in the dark and feed 'em bull. . . .

Consistency. Make sure that everybody is pointed in the same direction. Every action taken must be directed at achieving the overall goal. This means that the staff must be committed in action as well as word. The worst thing that could happen to demotivate people is for various departments to take different courses of action. Tasks must be designed in such a way as to get employees to act in the way we would like them to act. If we believe that we are what we do, then these actions are very important. Also, we must expect some failures. The important thing is that the action occurs. In a very short time, those failures will be replaced by success.

Make sure that everybody is pointed in the same direction.

Self-determination. People like to feel as if they determine the events that affect their lives. An important aspect of success is for people to be given enough room so they can take responsibility for their own lives. While it is important for a company to create financial security, it would be a mistake to shield the people from the realities of business. If things are going poorly, they should be told, offered solutions, and asked for their input. When we ask for their input, our people will feel that they have better control over their own destiny. As the leader, we will instill greater enthusiasm if we define the overall objective and let our people work out the details.

Themes. Particularly in sales, themes are very important to the communication process. Themes should be memorable and should have a message that is readily identifiable with corporate objectives. For instance, we might want the management team to be more aggressive, develop a fighting attitude, and have more competitive spirit.

Messages to the employees should revolve around the theme. Take every chance to reinforce the concept of the theme.

As managers, we must learn methods of communicating that encourage enthusiasm and challenge us to combat the wasteland philosophy. It's becoming increasingly apparent that good managers must add people skills as an integral part of their management repertoire.

PERSONALITIES FOR SALES

Developing people skills is a formidable task for people new to sales. The key to selling is to clearly recognize the personality we are dealing with at the outset. This presumes we give our prospect a chance to reveal themselves.

Good management theory teaches us to "box" people; and personalities are no exception. In selling, most people fall into three basic types: dependents, dictators, and competitives. Most of us exhibit a dominant trait most of the time and, particularly, while we are under stress. Selling anybody, anything, sets up a stressful situation.

Dependents are a salesperson's dream. Their need to be liked, to please, to be reassured, to minimize trouble, and their absolute fear of rejection are scent to the predatory salesperson. Dependents want, and need, instructions to function and, very often, are afraid to ask for help lest they risk rejection by appearing stupid. Meet their basic needs and we own them.

Really bad cases of dependency occur when these types are left out of the management loop and they need an outside ear to bend to convince themselves of their worth. Dependents are especially sensitive to certain key words. Reassuring words include definite, certain, positive, necessary, and permanent. Avoid any expressions of uncertainty, anxiety, loss, or ambiguity.

Dictators are difficult to sell. They exist to control us, write and rewrite the rules, define our terms, find fault, check our figures, and prove to us that they're right. Be prepared for a battle and expect to experience sometimes more than a little frustration. Notoriously, they create bottlenecks and display a "lawyer" personality under the guise of the devil's advocate. This causes them to go to great lengths to negotiate some obscure point. Be warned—the message is loud and clear: they're in charge, powerful, and important.

The key to selling the dictator is to be either helpless or helpful. By appearing helpless, we avoid the power struggle at the outset and defer to their "superiority." By deferring, we can divert their attention to our selling agenda under the guise of their

powerful persuasive powers. Channel their energy, their advocacy, and their organization abilities in our favor—go with the flow.

If we decide on the helpful approach, we must be sympathetic to their interests and needs. This is particularly the case if we are asking them to change their philosophy on how they "might" perform different tasks. Remember, arguing is a waste of time and a double whammy with them as our buyer. When threatened, the dictator will use logic as a barrier and retreat into a self-centered, introverted mode. The dictator's Achilles heel is the belief that their world, the system, is really flawed and must not be exposed. Firm reassurance is clearly in order.

Dictators are easily humored since they cannot imagine anyone not taking them seriously. Note, however, the humor must be sincere. Laughing or smiling raises doubts about sincerity and is almost guaranteed to infuriate them.

Competitives are often categorized as Type A personalities. Competitives are self-driving, reliant, and determined individuals. These people are constantly challenging themselves and seeking to grow into better selves. Unlike Type A, however, they usually have a low stress level because they enjoy what they're doing. If they have a fear of failure, it is realizing their own limitations. Competitives are typical sales, marketing, and sports people. They love a challenge and a good fight. Their competitive drive is fueled by lots of energy.

The competitives' desire to improve is both their strength and their weakness. When faced with a challenge below their abilities, they quickly lose interest. Conversely, when faced with a challenge beyond their abilities, they become discouraged. The competitive's Achilles heel is a deeply buried insecurity and the need for external reassurance.

Selling a competitive is a combination of challenging and praising their efforts. Present the sales opportunity as a "simple" challenge and get out of the way. They will readily join the team if they can assume the leading role. The sales stick can be tempered with the praise carrot. Be generous with praise and "well dones" when warranted. Insincerity will backfire.

Overlying the three primary personalities is the con man. Con men use bravado to cover up for lack of ability or knowledge, or both. A con man-dictator is a bad combination. We keep going back for the sale, but it never happens.

To call their bluff, ask them to repeat their explanation or to put their requests in writing. Turn up the heat a little and watch 'em squirm. They love using pressure against others, but squeal loudest when pressure is applied to them. The best way to detect if

we're being conned is to pay close attention to any negative impression that we have when we first meet them. When we find a con man, we gotta get outta there fast.

Remember, each of us possesses traits from each of the three personality types so don't try to "box" prospects too tightly. In general, we can recognize dependents by their need to belong, dictators by their love of power, and competitives by their need for self-esteem.

Personalities are only part of the sales picture. A super salesperson always shows consideration for others, minimizes conflicts, is ever helpful, is knowledgeable about his product (as well as the competitor), and follows through on promises.

INTERNS CAN SPARK YOUR BUSINESS

Here's a pop quiz. Write down a list of all the issues confronting the business—be honest now; no cheating. Did you list any of the following?

- Government regulations and reporting
- Aggressive competition
- Shrinking gross margin
- Increasing sales and marketing
- Coping with a changing marketplace
- Lack of creative ideas and enthusiasm in general
- Shortage of new products
- Contending with computers, faxes, voice mail
- Feelings of inadequacy to lead/manage
- Hiring good people and keeping them
- Boredom

New technologies can leapfrog competition, often obsoleting established businesses overnight.

What's the common denominator? Change. We definitely need to add change to death and taxes as being the only certainties in life. The impact of education has spawned more and more educated people, which has resulted in rapid change. New technologies—and new ideas—can leapfrog competition, often obsoleting established businesses overnight.

Small business is particularly vulnerable to change on two counts. Not only can the better mousetrap, or service, erode their existing business, but often they find themselves feeling inadequate when facing change.

Typically, senior executives have grown up with the business and are now one or more decades removed from school. Computers, statistics, demographics, and fax machines are daunting. We tend to become a little set in our ways and reluctant to try new approaches or ideas. It's always easier to go with the flow than to swim upstream. Our business has been reduced to a series of chores, some controlled by the calendar-like taxes. One change is constantly forcing itself upon us: we have to manage more and more information in less and less time.

Small business typically operates on a top-down management model similar to the military. The founder provided the spark, the vision, the drive, the energy to spawn the business from its vulnerable embryonic state to its maturity. Somewhere on the yellow brick road, the light grew dim and the vision faded, particularly when the business became successful beyond dreams.

Want to put a little spark back into the business? Want to add new skills, put some enthusiasm in the environment and, in general, get the place back into gear? This is going to cost a lot of money, right? We're reaching to protect our hip-pocket nerve—our wallet. We're thinking high priced management consultants, or worse, one more management seminar.

We should think instead about an intern. That's right, interns. Don't put up those walls that are usually supported by the twin towers of nepotism and charity when somebody mentions internships. All too often, such charges are true, particularly for big business. Small business, on the other hand, can ill afford the good buddy routine when their survival is on the line.

An intern program properly designed on a project basis can become an essential management aid to the company.

Every summer, there's a lot of educated talent out there. There are a lot of highly trained, eager beavers wanting the chance to show off their wares. What's more, most of them come cheap. They will not destroy the payroll and are trained with skills the business could sorely use. Okay, we've gotten over our nepotism guilt, but we're still negative. Yes, we tried it once before and it didn't work out. Why?

The odds are 9 to 5 we approached an internship program without any definite objectives in mind. A friend, or a vocational college person, probably called and, in a moment of extreme weakness, we agreed to take on an intern. Several weeks later, the intern showed up and we didn't know what to do.

To gain best use of an intern, we must have a clear objective in mind before they appear at the facility. Projects that can be completed in a maximum of 8 to 10 weeks are ideal for a summer intern program. What type of projects? Naturally, the projects we select should match the talents and abilities of the individual.

Market research on competitors and their products is an ideal project for a marketing intern. This information is essential to understanding the market's needs and wants since today's markets are constantly changing. Another good project is to have the intern evaluate the communications program or to investigate whether a telemarketing program might be effective for the business. The intern can bring the essential objectivity to work with our people to survey our customers to determine if we are responding to our market and positioning our products and services properly.

There are three primary marketing questions we need to answer if we want to ensure profitability. With a little prompting, a good quality junior marketing intern is probably up to the task of supplying the answers. The questions are: What market niches can we serve?, What type of sales program would be most effective and within the firm's ability?, and What type of communications program will be required to ensure sufficient awareness of our products or services to maximize the effectiveness of our sales efforts?

Computers are a good project for accounting interns, but not just for pure data entry. Challenge a mind and reap the rewards; insult it and watch its enthusiasm wane. Good projects include computerizing the accounting system, setting up a receivables aging program or a general ledger, establishing perpetual inventory, designing key management reports, and fixed and variable cost analysis.

Engineering interns are ideally suited to working under the wing of a senior engineer and handling small projects. I spent two summers helping start up a plant and handling spare parts for major equipment items. Dirty hands breed good engineers.

What about the arts and English majors? Our first reaction is to dismiss their possible contribution. Think again. What about the form, expression, and content of our business letters and proposals? Do we publish a newsletter or an annual report? Editing is a skill that is so often overlooked and very undervalued.

A word of caution though, not all professionals are receptive to this mentor role. A mature and helpful personality is very desirable in managing an intern. The mentor must respond to the enthusiasm of boundless youth and not be threatened by it.

There's another benefit to hiring an intern that may not be immediately obvious, but could have even longer term benefits for the company. Interns eventually become someone's employee—if there's a good future match. An intern program allows us to take a real good look at potential employees at minimum expense. We can rate them in a real business situation as opposed to feeling them out in the interview—an experience that is usually uncomfortable for both parties. An intern program properly designed on a project basis can become an essential management aid to the company. Reaping the wild oats while they're still in school can show both short- and long-term benefits for the company. Think about it!

HIRING THE NEW GRADUATE

I have been fortunate to welcome home four sons bearing the "prized degree" and ready, willing, and eager to conquer the world. But often, before I could release the proud parental sigh of relief from getting at least one more off the payroll, we plunged into the dreaded interview process! I expected my sons to be unprepared for this situation, which is clearly not taught in school, but interviews revealed an unexpected and curious fact: most of the interviewing companies were also unprepared.

Naturally, the majority of business books and articles focus on this topic from the seasoned employee's perspective—what questions to ask and what questions not to ask. But I haven't seen any articles that examine the issue from a new graduate's perspective. Considering projections of a shrinking supply of talented graduates, it's a perspective that will be increasingly studied as companies compete for the best and the brightest. Here are a couple of points to consider if we want to put ourselves in their shoes.

Two major questions confront most graduates when they leave the safe haven of school: What do I really want to do with my life and career? and How do I choose one company over another as a potential employer? The first question is typically asked in any job interview and any graduate has boned up on the standard answer to suit the respective field. The standard answer pacifies the interviewer who reports to management that the new graduate will "fit in."

An honest answer to the first question was provided by Eric Bunting, a former tennis pupil of mine, when he wrote in his senior fellowship proposal— "As is probably to be expected, I am not sure of my plans after graduation. I am interested in a business or law career, possibly one that deals with finance or international business. I want to pursue a career which is exciting, mentally challenging, and productive in an overall sense. . ." Read his words again very carefully. Even though he expresses uncertainty, he stresses excitement and the desire to contribute. Recall the challenge of Steve Jobs to Scully in offering him the CEO job at Apple— "Do you want to spend your life selling sugared water, or do you want to change the world?" Scully was hooked. We need to hook good new hires. To do this, we must present the company and the job as a rewarding and exciting opportunity. How do we do this?

First, let's cover a list of what not to do. Don't repeat the old routine—look over the corporate brochure, the annual report, and our great employee benefits programs (we're a great company, aren't we?) and we'll be back shortly to interview you (we're too busy to devote our full attention to you). This is a great first impression! It really builds up the old nerves in the graduate who is already foreign to this scene.

Avoid the Spanish Inquisition. This is the typical arrogant searching question approach that implies "we're not sure if you can pass muster and measure up to our standards." I told my sons to run, don't walk, away from these wonderful opportunities. Another approach to avoid—the good old boy: "yes, I remember . . . and remember . . . I'm sorry, we seem to have run out of time. Now, quickly, what was it you wanted to learn from me to help you make this career decision?"

My favorite is the trust me approach: "I really know what's best for you and I'll take care of you." Salary, position, and benefits are not discussed. Funny how circumstances can quickly change when the mentor leaves the company.

Then there's the "get up at 5:00 a.m., fly in by 10:00 a.m., and fly out by 5:00 p.m. approach." This is great for impressing a young mind, but not for making decisions. Naturally, the new graduate is impressed with the expense account, the "free" ticket to the east or west coast (the bait), and the fast life in the big city. This one's no good for the graduate unless he or she can get several interviews to get and qualify essential details.

All of the above interviewing approaches should dissatisfy any talented graduate, and should dissatisfy a company wanting to attract the future of the business. Remember, this is a two-way street where we need to do a little selling as well. I sat down with one of my sons and came up with a list of six major areas that he needed answers to in the interview: the company, the position, management development, personnel policies, working environment, and miscellaneous.

The Company. What is the basic size of the company; annual sales and number of employees? What is the company's reputation in the industry; as an employer and amongst its competitors? Does the company have a diversified product/service line and what is its growth potential—is it expanding? Does the company have a good management team? What is the company's climate, morale, and culture—formal or informal? What was the interviewer's first impression of the company? Would a stockbroker recommend buying the company's stock for long-term growth?

The Position. How good is the position in relation to the graduate's professed requirements? Where would the graduate sit in relation to senior management? Is the position a good fit with the graduate's known capabilities? Can the graduate make a contribution to the company? What is the salary range offered for the position—is it competitive? Is the position a challenge at present? Will it remain so in the future? For how long? What are the opportunities for personal growth? How much will they have to travel? What is the company's attitude toward expense accounts and class of accommodations?

Management Development. Does the company have any formal programs for management development? Does the company have formal career and succession

planning? Are there internal training seminars? Is the policy to promote from within the organization?

Policies. Does the company attract the best people? Is the company competitive on salaries and benefits? Are increases based on merit or automatic for the first several years? Is there a high staff turnover—why? Is there a history of staff layoffs in the company? In the industry? What happened during the last serious downturn? Does management have status symbols? What benefits are in the package: health, dental, pension, car allowances, bonuses, paid subscriptions and memberships, others? How much vacation does the company offer and when?

Environment. How many management levels would there be between the new hire and the department head? How many organizational layers are there in the company? Is the immediate superior a strong, experienced manager who can teach new skills? What is the new hire's reputation and sphere of influence in the company? Would the graduate report to more than one manager? Is this a new position; has it been created for the graduate? If not, what happened to the previous person? What is the attitude and reputation of the graduate's soon-to-be associates?

Miscellaneous. Does the company pay for additional schooling, outside training, and development? What parking, eating, shopping, and banking facilities are located close by? What is the commute time; will it be an easy or difficult commute during rush hour? Will vacation be easy to arrange? What staff social activities are held?

While this list is comprehensive, it does not and cannot address the bottom line factor—the people chemistry. Would the graduate's peers in the company be able to provide excitement and challenge? That question can't be answered in an interview.

I hope my list proves useful in considering the type of information to present to new hires and the interview approach taken in sharing helpful information. Conversely, our list might also serve as a checklist to see if the company provides an exciting and challenging place for people to work. By the way, my sons all got jobs.

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Selling Our Products

- Marketing Our Image
- Letter Marketing
- Meeting Advertising Goals Demands Commitment
- Advertising In The Classifieds
- Lateral Thinking, Credibility and Advertising
- Bantering
- Nurturing Credibility
- Living Up to Our Image
- Telephone Musings

Sales, we must have sales to survive! How do and how should our customers know us? Hermes, Zeus' Messenger, travelled as swift as thought in his winged sandals, and his shrewdness and cunning made him the god of commerce and the market, protector of all traders. Lacking the divine gifts of Hermes, and struggling with limited budgets or resources, how can we create and promote our products (and our corporate image) to get and maintain customers? How can we develop a positive image? Try some of these tips.

SELLING OUR PRODUCTS

MARKETING OUR IMAGE

An image can masquerade under various euphemisms—as a slogan, theme, appeal, or idea—any of which really amount to communicating an attitude, posture, or proposition of the company and our product. In short, what is the bill of goods we want them to buy?

If we're honest, and the boss is not around, we'll probably admit to glancing at Tuesday's *Wall Street Journal* ads. I enjoy reading them for comic relief from the typical ad that seeks to interest us in a new position, sufficiently anyway to fire off the old resume and perhaps risk a career change. To learn what not to do in presenting our image, take a moment to glance at this Tuesday's issue. By their ads, we shall definitely not know them.

Here's a few dandies from recent issues: "An emerging leader in energy . . .," "Rapidly growing, privately owned . . .," "An industry leading manufacturing company . . .," ". . . your biggest challenge will be building on the excellence . . .," ". . . the nationally recognized . . .," and "a dynamic organization selling PC software."

Well, I'm familiar with more than a few companies across a broad band of industries, and I certainly didn't recognize the companies who were emerging, dynamic, and leaders in their field. I guess they're trying to get there by hiring the right people. Don't ask me what my reaction was. Oh, I nearly forgot my favorite: "At Sprint, our fiber-optic communications aren't the only thing that travels at light speed. Careers speed up, too, . . ." According to the newspapers, Sprint has had its share of difficulties. I don't think the rubber met the road.

Conversely, I have read ads for Hallmark and Nissan that almost understate the company, the position, and the opportunity. The ads were tasteful and appealing, and they clearly presented a believable image of a company one might want to work for. No, I wasn't tempted to send off my resume.

Too often, I have had to reimage a start-up and had to face the typical problems of many small businesses. Very often, the product is simple in appearance and easy to use, but how it works is highly technical. Sales people and potential buyers need to understand it. Often, it is difficult to communicate the advantages of the product and its application through ads, letters, phone, and sales calls. Personal demonstrations by technical people have successfully sold the product, but continuing this approach, with our goal of high-volume sales, is impractical because of sheer market size. In short, that's how we come to reimaging.

Questions posed by our creative people in such situations as to the image we want to sell are: Who is our target audience? What response do we seek? What message should we develop? What media should we use? What attributes should accompany the message? What feedback should we collect?

The greatest of these is audience. The audience may consist of potential buyers of the products, current users, deciders, or influencers. The audience may be individuals, groups, or the public at large. How we define our target audience is critical in determining what is said, how it is said, when it is said, where it is said, and who says it.

How we define our target audience is critical to determining what is said, how it is said, where it is said, and who says it.

Now, the gurus of marketing communications have coined a vague term to measure images: semantic differential. The semantic differential consists of three basic factors: evaluation (good-bad qualities of the image); potency (strong-weak qualities); and activity (active-passive qualities).

Images are developed through the skillful combination of these three factors. Evaluation includes such markers as reliable, well-known, national, regional, or local. Potency assesses in terms of large company, small company, and friendly. Activity takes a look at descriptors like growing fast, emerging, progressive, and conservative. Typically, the marketing communicator first surveys a small customer sample and then refines the image on a larger group.

These same gurus have coined another term to describe how the message is perceived by the audience: source credibility. We are familiar with the use of the professional athlete, the professional in some other respected field, or the media spokesperson to deliver a persuasive and credible message. We may even have used customer testimonials as references ourselves. But, what are the factors that underlie source credibility? What are the factors that make the image believable?

The most often identified factors are expertise, trustworthiness, and likeability. Expertise is the degree to which we are perceived to possess sufficient authority to justify what we are representing. Trustworthiness relates to how objective and honest the company is, or how well the product's claims measure up. Likeability relates to how attractive the message and its presentation is to the audience. Candor, humor, and naturalness make a message more acceptable.

Most communicators will opt for a personal, well-supported message versus a nonpersonal image, especially in the following cases:

- Where the product is expensive, risky, or purchased infrequently. In these cases, customers are likely to be information seekers. They will probably go beyond

mass-media information and seek out the product experience and opinions of knowledgeable and trusted sources.

- Where the product has a significantly social character. Such products include autos, clothes, beer, and cigarettes. These can all be significantly differentiated by brand and hence, imply something about the status or taste of the user.

The basic strategy to use with most start-up companies is to position the company as credible and well-supported with a premier product (the industry standard) in the target markets. To ensure product differentiation in each market segment, the product may be relabeled distinctively as a series of simple, easy-to-use systems for specific and easily recognizable applications.

To overcome the difficulties in communicating the advantages of the product and to reduce dependence on technical depth to sell the product, a general purpose brochure is designed. It clearly presents the technical product in layman's terms, its features, benefits, and simplicity. This brochure, when coupled with testimonials from satisfied users, plus customer lists from recognized companies to inspire confidence in the product and the company, formed the primary marketing tool and was disseminated to inquirers, customers, and distributors. Does the strategy work? Yes, it paid off immediately with the signing of a major distributor for one start-up company I was associated with.

The last word on image is best conveyed by the widely published direct mail *McGraw Hill* ad. This is the ad with the grumpy executive addressing the salesman: "I don't know who you are, I don't know who your company is, I don't know what your product is . . . now, what is it you want to sell me?"

And how can you sell me—easily?

LETTER MARKETING

Let's talk about advertising and promotion. Even common sense tells us that we have to alert our customers to our presence, our products, our services, and our location. Too often, businesses rely on the yellow pages, street traffic, and word-of-mouth with token support from limited and infrequent advertising.

Common sense aside, market research studies have consistently shown that buyers most frequently *patronize* (key word) businesses with which they are familiar. When asked to list those factors (in decreasing importance) that influence a buyer's decision, most people answered confidence, quality, selection, service, and price. How do we instill confidence in our prospects?

If you exhibit a Type A personality, and 70 percent of us do, you've probably already completed the above sentence with "advertising." You're expecting the usual package of media ads, direct mail, trade shows, sales literature, product catalogues, brochures, public relations materials . . . wrong! Surprisingly, one of the most effective, easiest, inexpensive, and overlooked methods of advertising is the "personal" letter. In the 1990s, this has been supplemented by electronic mail. (Did you know that 1996 was the first year in which the number of public emails exceeded the number of letters delivered by the U.S. Postal Services? This doesn't include Corporate America's internal email communications! Hereafter, we should include email in the definition of a letter.)

Let me emphasize the word personal lest we confuse the approach with the deluge of "personalized" direct mail that clogs our mail boxes. Let me also emphasize that this communication approach is not generally suited to big business: it doesn't reach enough prospects to justify the cost and success ratio and, most importantly, we must personally know the intended reader. If we're a small business, or a product manager with a new or large ticket item, this approach is guaranteed to build confidence and sales. People enjoy being recognized and getting attention. A simple personal letter gets their attention quickly.

A personal letter conveys a personal feeling and reaches a special place in the mind of the reader. We can say specific things in a personal letter that are not practical in any other advertising medium except for the personal telephone call. Ma Bell ("Reach out and touch someone") and Kodak ("Bring your memories to life") are prime examples of the personal touch. Japanese companies are also very adept at this approach; I still get Christmas and New Year's cards from people I haven't seen in years.

One of the easiest, most effective, inexpensive, and overlooked methods of advertising is the personal letter.

Include as much personal data in the letter as possible. Start off with the Dale Carnegie approach—their first name—then lead into personal items about their life and business. Gathering these personal items can be accomplished easily if we do our homework when visiting customers. Learn about their personal and working habits, their family, their goals, their hopes, and their problems. We can supplement our personal observations by networking the various chambers of commerce, professional clubs and societies, and sports clubs. The effect our letter has as a door opener will be dazzling.

The real test on whether we're a flash-in-the-pan or not comes after the letter is sent. No matter how motivating the letter has been, we must follow up our initiative with either another personal letter, within 2 to 3 weeks, or a personal telephone call initiating a meeting. The follow-up letter may be brief and summarize previous information, but it also must contain new information on why the reader might want to do business with us. Continue to send letters on a regular basis along with other sales materials.

Before continuing, the difference between a "personal" letter and a "personalized" letter must be clarified. The personalized approach, made possible by computerized word processing, uses a first name salutation and a few personal references, which are occasionally found in the body of the letter, but more often in a postscript. The personal letter is specifically directed to one individual and contains so much personal information that it is designed only for that person. This approach has a much greater impact than the personalized letter. Including additional personal items will intensify the relationship by convincing the reader that this approach is not part of a clever mass-mailed campaign: people don't liked to be tricked.

When calling, take advantage of the letter, which has introduced us as a friend and not as a stranger. Refer to the letter and restate the points made to ensure familiarity. The phone, a direct pipeline into the mind and hence very intimate in nature, is a great way to develop a relationship. We better practice up on our phone manners if we're uncomfortable. Follow up with another letter confirming the conversation.

How long should a typical letter be? I try to work to a one page limit, but I don't worry about running over to a second if it ensures I convey essential information. Short personal letters have a much greater impact, particularly those with warm, motivating copy. Such letters are a welcome relief from the uninspiring, inexpressive, typically boring "personalized" business letters.

Take the time to review all the letters before mailing them. Try to follow these established gems: state the purpose of the letter early on; keep paragraphs short, six or so lines; indent or title each paragraph; don't go wild on underlining, capitals, or quote marks; keep the message short and to the point; spell the name of the person, company, and address correctly; and use a postscript to emphasize the key point if it needs reinforcement. If our writing and expression are too sloppy, we can have our English-major interns edit it for us.

As with all marketing, timing and perseverance are important. Our message may be great, but if the audience is not tuned in at that moment, we'll fail. Too often, small business people expect instant results from marketing and are disappointed when orders don't flow in. Err on the side of repetition and frequency in communicating with customers. Give it some time. Remember, it took most of us a long time to overcome our inherent shyness and develop the relationship that resulted in marriage. Courting our customer through personal letters will pay dividends over time.

MEETING ADVERTISING GOALS DEMANDS COMMITMENT

If the company is like most small businesses, spending money on advertising is considered a necessary evil. Necessary because all the management books we've ever read say we have to do it, but evil because we hate wasting money.

Typically, it's difficult to quantify the results of our advertising. We have no real idea how cost effective placing an ad for our product or service is and whether it really brings in any significant sales dollars. We take no solace in reading that research shows that when the buyer is exposed to advertising prior to the sale, our dollar sales can be increased by up to 20 percent. In short, we wonder how we can best reach our prospective customers.

How can we reasonably confront these fears and obtain real value, and results, for our advertising dollars? Before we commit funds to an advertising effort, we must establish clear and measurable objectives. It's not enough to set vague goals such as "increased sales" or "making customers aware" of our product or service. We must make our objectives very specific: create a new customer base; increase or extend usage of our product; increase product volume; or promote frequent replacement of spare parts and maintenance. Other objectives might be to assist our distributors, improve our brand name recognition, or generate new sales leads. Once we have specified our company's goals and objectives, we can begin formulating and defining our advertising budget.

Advertising is, of course, not strictly limited to media exposure. Promotion includes marketing and media research, creative services, sales training, and agency fees. We can also prepare trade show exhibits, sales literature, product catalogues, brochures, public relations materials or Internet web sites. All are potential items in an advertising budget.

Many methods are available to us for preparing the budget; however, any method can be flawed if applied indiscriminately. Some of these methods include "match the competition," traditional percentage of total, and hysterical (read historical). There's also a fixed-dollar sum method, the whatever-we-can-afford method, the profit margin method, and the ratio of sales force vis-a-vis advertising apportionment.

My favorite method, and perhaps the least risky, to use in preparing a successful, affordable, and profitable advertising budget is the "budget by objectives" method. This approach requires allocating funds to attain specific and measurable goals. Four simple steps are all we need: (1) set specific, realistic, and measurable marketing goals; (2) plan activities to meet these goals; (3) sum the expenditures needed for each portion of the plan; and (4) provide a contingency reserve.

Our final advertising budget is the total of our expenditures plus our contingency reserve.

The most difficult part of budgeting by objectives is estimating the effort needed to achieve our goals. This is where the experience of a good agency can help. Systematic testing of results from advertising—response frequency and rate, and ratios of inquiry to

prospect to sale—at varying budget levels can be used to determine an appropriate level of effort.

Three rules of thumb are helpful in preparing the advertising budget:

- When the product or service is a high-volume, high-margin, or impulse purchase item where advertising will have a significant impact on sales, allocate no less than 8 to 15 percent of total sales revenues to advertising and promotion.

- When the product or service has a large average invoice and is a preplanned purchase with a profit margin ranging from 25 to 50 percent, allocate no less than 5 to 8 percent of sales revenues for advertising.

- For commercial and industrial products, allocate 3 to 6 percent of revenues to advertising.

Keep in mind that advertising is a profitable investment to generate increased sales revenues. Not only should the advertising budget be considered a fixed annual expenditure, but flexibility should be built in to provide for revisions, maintenance costs, and increases in media costs.

Finally, advertising methods and budget are a statement of the company's business philosophy. Management studies have shown that companies that aggressively advertise are more likely to be aggressive in other business attitudes. To strengthen sales and market share, cultivate an aggressive advertising attitude and make every dollar count. Advertising can really pay off for the company.

ADVERTISING IN THE CLASSIFIEDS

Let's talk some more about marketing beyond using the personal letter as a promotional tool to build and sustain a customer base—sustain being the key word. My advice was to err on the side of repetition and frequency in communicating with our customers, and to give it some time.

Let's look at the givens. We know we've got to find those prospects and turn them into customers. We know we have to tell them who we are, where we are, and what we do. We know we have to follow up in the most friendly and helpful way and tell them how well we do what we do. We know we have to tell them without brown-nosing; we need to appear hungry, but not starving. Above all, we know we have to tell them again and again and again.

It's a Catch 22: How are we going to do all of this and how are we going to pay for it?

Let's break the panic cycle for a moment and stand back and ask ourselves two basic questions: What is small business? and What is marketing? Take the first question first. The government has several "daffynitions" for small business, based on SIC code, but they all pretty much boil down to less than 500 people and $10 million in sales. That's where we wanna be, right? But how do we get there?

Enter marketing stage left. Marketing is everything we do to promote our business on a regular basis! The key words here are everything and regular. Marry the marketing and business concepts and we have joined desire with need, which is a great combination that should lead to commitment. Even natural beauty takes time. Buy in for the long haul.

Marry the marketing and business concepts and we have joined desire with need.

How do we make small beautiful? Classified advertising is a great place to start.

When we think of the classifieds, we probably think of the newspaper ads: buying a car, a boat, or a house; finding a job; or locating a garage sale. Think again. Think about the business opportunities and for sale columns we gloss over with eyes half opened over morning coffee. Think also about how the Internet's news groups and email fit into a "modem classified." If all of those entrepreneurs and businesses are using the classifieds, why shouldn't we? Check some back issues and discover these advertisers run the same ads or send the same emails consistently. That should be a clue that there's a marketing payoff here.

Generally, there are two main places to run classifieds: newspapers and magazines. With the advent of the Internet, we can add news groups and web sites. For the "traditional classifieds," market research says, if our product serves local customers, concentrate on the daily or regional newspapers—90 percent of our customers will typically buy within a 7-mile radius of our facility. On the other hand, if our product serves a national market, go for the multitrade magazines and the Internet. Do a little market research. What media does the target audience read? Keep those eyes open during expensive office visits. It's surprising how many people actually read classified ads and emails. Even today's conglomerates started from humble beginnings and probably as classified business opportunities.

There's more good news. It won't cost an arm and a leg to run a classified or to advertise on an Internet news group. Even better, we'll get a break for running multiple ads. Ad charges are based on the number of words, lines, or inches. A typical small newspaper ad will cost around $20 to run one time and will be discounted by 10 to 25 percent if we buy multiple ads. Emails often only cost a local phone call. A word of caution though—don't wear out your welcome with indiscriminate emails.

How should our ad read? Imitation is the sincerest form of flattery, so go read the competition. In general, note the better ads have a bold, short headline, describe the product and its features in crisp sentences, avoid jargon, and provide an address or phone for contact.

Don't rely on the person who sells the space to write copy. Most publications have people who can suggest text for an ad, but if we're reasonably good at writing, we should draft our own copy and spend a few bucks with an editor and graphic artist to clean up the message and presentation.

One of my favorite approaches is to literally run a business card either in the classifieds or in a section specifically for this. This approach presumes, of course, that we have designed a business card as a mini-brochure to sell our product rather than just having an anemic calling card. Whatever form we use, the ad should be designed in such a way that it contrasts with the other ads in the section. This is where the graphic artist comes in.

Where should we run our classified? Since we will have several different categories to select from, and the categories may differ between publications, we need to choose correctly. If in doubt, experiment for a while by placing the classified in more than one section and monitoring the response rate. After we find our niche, we stick with it. Buy space for the ad on at least a quarterly basis and pay for it so the company will stay the course. Otherwise, we could be tempted to quit because of initial disappointing responses.

If the response rate is less than reasonable, do a little homework on whether the message and form are correct. And, don't forget the time it takes to break into any new market—some niches are more conservative than others!

Another tip is don't get hung up on the economies of scale by buying less space than needed. It is folly to have an extremely short ad at the expense of the message. Our classified is our first sales presentation to our customers, so we can't hold back on extolling our features and benefits. But, keep to the facts. We may spend a few dollars more because our ad is longer, but often even one extra sale will easily pay for the cost of extra space.

Remember, just because classified ads are small and inexpensive doesn't mean they are ineffective. Classifieds and emails allow us to target a more widespread audience. Classifieds, when used with news releases and public service announcements, will also allow us to test the water with our product message and in selected media before committing to the more expensive display ads or web sites. Indeed, small can be beautiful—and profitable—for the small business marketer.

NURTURING CREDIBILITY

Credibility is a simple precept we can't buy or sell, but it impacts on us collectively as individuals and businesses. Credibility equates with confidence . . . and sales . . . and profits. It can mean the difference between success and failure. If we can't buy or sell credibility, how can we acquire it?

The words of the immortal Bard are apropos: "Be not afraid of greatness: some are born great, some achieve greatness, and some have greatness thrust upon them." Now substitute the word "greatness" with the word "credibility." If we weren't born with the proverbial silver spoon in our mouth, or we didn't marry into it, we're left with the latter two choices.

How do we achieve (or grow) credibility? Some people equate growing credibility with "buying" credibility, which puts me in conflict with my opening premise. Growing credibility comes from moving in the right circles, so to speak. Buying a degree from a well recognized college is often suggested as the way to the executive washroom.

While we're on the subject of education, let's digress for a minute and consider the effect of the quality of education. Midwestern businesses have been saying for some time now that some of their business problems (read failure to attract new business) are directly related to a failure to be associated with the likes of Harvard, Stanford, or MIT! What a load of poppycock. It's not until we are out of the area that we find out their local colleges are nationally recognized in key fields (not just in football or basketball!). I'll agree that a nationally recognized school increases the chance of attracting new business, but it takes much more than that to get the job done.

Midwestern cities suffer from gulag personalities. Local people, in business as well as sports, seem to want to believe that they can't compete with their east and west coast relatives. I experienced this first hand in a small firm. A major competitor had the firm believing that a market no longer existed for their product. They had bought the message of their competitor's public relations efforts even better than their own customers. The media had made them "believers" that they couldn't compete—that they were lacking something. They expected to fail; and hence, were not surprised when they "achieved" the expected result. I don't know about you, but I hate to lose—at anything! As Mao said—the longest journey begins with the first step.

It is very true, however, that a professional degree from a prestigious college will increase our chances of getting a job offer . . ., or our chances of getting our foot in the door to promote our business. The credibility of one's alma mater can be transferred (by osmosis?) to our business.

Osmotic credibility can also be used to gain an advantage. Let's go back to sports for a minute and the Michael Jordon "jock" syndrome. If a person is reasonably intelligent and has attained some notoriety in sports, it is possible for that person to transfer credibility to professional pursuits. In this case, however, that person has to continue to produce the goods to grow credibility.

Achieving professional recognition in our field of expertise also confers credibility. In the 1980s, the well-published financial analyst, Granville, established some notoriety in the stock market early on that was purloined into a successful newsletter business. People like to ask experts to make their decisions for them.

Let's also not forget the impact of the "network" syndrome. Whether we were born with it, married into it, were elected into it, or whether we've been in business for 30 years or more, or managed to make it into the people-in-the-know circle, we can barter contacts for credibility. Have you met any big name dropping would-bes, could-have-beens, politicos, or sales people lately? Were you impressed?

Let's not forget the credibility we can derive through working for various civic and charitable organizations. Friendships and relationships developed through such contacts have fueled the fires of many businesses. Take a minute to look through the membership rosters and notice that many members are from service-related businesses.

Working for a large, well respected, well known corporate giant also confers credibility. I gain attention in client communication with the two little words, "Fluor Daniel," after my name. What a shock it was when I worked for my first small business in the U.S. I would call people up and they would have me spell out the small firm's name before I could start the pitch—I lost them right there. People do equate success and credibility with size and, most often, at the expense of price or service. We have short memories and forget that these giants are made up of people, too!

Meanwhile, back on planet Earth, we small business people are trying to cloak ourselves in credibility to increase our chances of success and survival. We've read all the management books about business planning, the functions of the CEO, and how to avoid failure, but we just can't seem to get our foot in the door to pitch those critical sales. Typically, our business is less than 10 years old, we're not a jock, not degreed from an Ivy League school, and we are waiting for "the big break" to thrust credibility upon us.

To solve our problem, a little lateral thinking is in order. Read DeBono, the prince of European lateral thinking, if this is a foreign concept. He's bigger in Europe than Drucker, the U.S. management guru. The U.S. system trains us to think in selective, vertical thought patterns. In vertical thinking, one follows a stepladder series of facts, eliminates those that are false at each step, and reaches the most appealing conclusion at

the top of the ladder. In short, vertical thinking has only one way to go. Contrast this with lateral thinking, wherein the idea is to find as many approaches as possible. With lateral thinking, the steps on the ladder do not have to be sequential. We can come in from left field and jump ahead whether our previous assumptions were correct or not.

How can we use lateral thinking to "thrust" credibility on our small business?

LATERAL THINKING, CREDIBILITY, AND ADVERTISING

What was the common thread binding all the elements of credibility we examined above? Name recognition! We knew the Ivy League schools by name, we knew the jocks, and we knew the companies. In each case, the individual gained credibility by association. So, how does small business build credibility (read recognition) by association?

If we come up with only one answer, company association, we have failed the lateral thinking test miserably and definitely ought to buy a DeBono book on the subject.

But, we're on the subject of credibility building now, so let's see it through. Our customer list! That's right, who's on the customer list? Do we have any big names we can use to promote ourselves directly (by testimonial) or indirectly (by published lists)?

Remember the three basic truths of selling: nobody likes to be the first to buy anything, nobody likes to be sold anything, and there's safety in numbers. Get a few big boys on the list to nurture credibility. This works best with high ticket items or direct sales. We do have a published customer list, don't we?

The three basic truths of selling: nobody likes to be the first to buy anything, nobody likes to be sold anything, and there's safety in numbers.

A big brother company association can work for us in more subtle ways. For example, the Xerox Corporation has chosen our business to be its exclusive representative for its new zapper machine but in a limited sales territory. Play down the limited sales territory and play up the confidence Xerox has expressed in our company in appointing us as representative for any product. Use this edge to pull through additional sales for the me-too products.

Another big brother scenario: IBM has approached us to distribute our new, patented battery charger nationwide to computer wholesalers. Here's our chance for a couple of feature stories and press releases to spur development or expansion of other markets—pull through sales again. Now that we've formed the parade, get the Chamber of Commerce or state small business development agencies to grab our flag and do a little mutual interest promotion. Everybody, particularly the politicos, likes success stories.

Here's one I bet nobody guessed: a combination big brother and media approach. Magazines such as *Time*, *Newsweek*, and *Sports Illustrated* are solid, reliable, and expensive publications in which to advertise. By association, businesses advertising in such media must be stable and credible, too. Right? The trick is how to afford to advertise in such national media and yet build sales in our local market. Here's the two-part answer: advertise only in the regional editions of prestigious publications and follow up with a direct mailing of the printed ads. If we're in retailing, we proudly display a point of sale blowup of the ad in our showroom.

To really get more bang for our buck, we will also mention our national magazine ads in the other media we use: radio, yellow pages, signs, direct mail, personal letters, and telemarketing.

If we're really strapped for cash, we can ask our advertising agency about remnant space in these media. By being flexible and patient, we can wait until our target magazine has not sold its quota of advertising space for a particular edition and then negotiate a substantial discount for the remnant space. Imagine seeing our ad alongside AT&T, IBM, and Xerox!

Another way to develop credibility is by packaging our products or services in first-quality materials. A well-dressed mediocre product, presented in a four-color package, will get a lot more attention than a superior product flimsily draped in a brown paper bag. In the eye of the purchaser, quality packaging confers product quality.

Thrusting credibility on the small business: did we also guess by people association? Think back to the media spokesperson on TV pushing the latest and greatest car (Lee Trevino), hardware (John Madden), perfume (Liz Taylor), razors . . . it's an endless list. Foul! we cry, since we don't have the bucks for a campaign like this. Wrong. We have just put ourselves into the vertical thinking box again. The concept was people association not media personality association!

People association works in small communities and industries even better, and without media advertising. For example, if Bill's best friend, or better still his competitor, just bought our product, wouldn't Bill like to get in on the deal, too? Since Bill's friend bought first, there's no risk to Bill. A little market research can turn up a lotta Bills in the market and can pay big dividends (pun intended).

Altruism can also nurture credibility. For example, our company has just developed a new product that detects chemicals in the environment. We want to get the word out to consumers and regulators that we have a solution to a problem of national concern. We start out by pitching our angle to the local media and watch the voracious national networks and media focus national attention on the issue—and our product. Everybody

wins. We help solve a problem and make a little money in the process. Greed is good when serving the common good.

We can gain credibility by our address. For example, locating in a higher priced mall instead of a remote strip center is likely to make most people believe we're sufficiently established to be stable. The same is true if we rent office space in a building occupied by a prestigious firm. It's great when we tell our customers to look for the AT&T building. If we're dependent on local traffic for business, locating by McDonalds will guarantee traffic. That's how Burger King and others have picked their locations. However, a word of caution on location—do a demographic profile of the location before moving in. If you don't know what a demographic profile is, this is a signal to get some help, pronto. Rent, cheap or expensive, doesn't buy customers.

We also can lose credibility through our address. We should pick a neutral location if we want to serve customers who might be in conflict with one another.

Never forget that the strength of small business lies in its quick decision-making ability, its flexibility in adapting to changing circumstances, and its survival instincts. Be ever vigilant in using lateral thinking to turn the seemingly insurmountable advantages of big business and big media into an advantage.

The strength of small business lies in its quick decision-making ability, its flexibility in adapting to changing circumstances, and its survival instincts.

LIVING UP TO OUR IMAGE

Sometimes, the rubber doesn't meet the road. Sometimes, the product or service doesn't live up to its celluloid corporate image. Failure to fulfill expectations is a lesson that small business doesn't want to learn from big business. Handling those inevitable customer complaints is a skill small business must learn.

Let me recount several recent experiences: first, here's one for Bill Marriott. Bill runs several large hotel chains and "always" wants to know when things go wrong. Well, Bill, things went wrong in Seattle a while back. The scene: a quiet, personal, business dinner, a polite order taken, and the arrival of the meal. Just one look told me that the steak wasn't what I had ordered, but what the heck—I started into the meal. One taste told me I had gotten the "lubed" vegetables. Clearly, I had the cooking oil and not the butter sauté. Well, not wanting to make a scene, I motioned to the waiter and explained my predicament, which brought the assistant manager. The offending meal was removed, but it was returned shortly thereafter with the original lubed vegetables now slimed with a cheese sauce, but worse, my partly eaten steak had been trimmed neatly and was accompanied with the explanation that it was the correct steak! Now I was a liar as well as being in poor taste!

Scenes are not really my thing, so I wrote a suitable note ("worst meal . . .") on the bill and reduced the tip—all without response from three staffers, whoops, Bill's associates. Better yet, when I checked out, no follow-up either. Well, Bill, are you going to ask me what I think?

Airlines and car companies are my next source of images misfired. Delta definitely wasn't ready when my son came home from college with his ticket freshly laundered. In front of a long customer line, he was made to feel like a criminal for his mistake. Then there's the oft-quoted Lee, who failed to respond to our letter when we got one of his lemon cars just out of warranty . . . "the best built, the best backed. . . ."

I'll bet you can relate similar experiences when the rubber came up short.

Several years ago, the U.S. Government's Department of Consumer Affairs got into the act of handling consumer complaints and came up with two important gems worth noting:

- Customers who do not complain when they are unhappy often switch products, companies, or both.

- Since marketing costs are so high, it is often cheaper to resolve the complaints of existing customers than it is to win new ones.

Clearly then, it is sound business practice to actually encourage complaints from dissatisfied customers. But it is even more important to follow through and respond positively to customer complaints. Follow-on research confirms that companies that respond swiftly and positively to customer complaints rebuild patronage and increase customer loyalty.

Now, I've spent my share of time on the end of a phone dealing with irate and emotional customers while trying to stay calm and detached. When we've reached this point, we had better be able to demonstrate interest and sincerity. More importantly, whatever marketing effort has preceded this circumstance is going to determine whether we can turn the complaint into future business.

Three aspects of our marketing will influence the likely outcome: our product and our company's reputation for quality and service; the circumstances that led to the complaint; and our policy in redressing the complaint. Any of the three factors can be used effectively to alter the impact of the complaint either by eliminating the cause or reducing the intensity.

Our Reputation. We worked hard and spent real marketing dollars to build our reputation, although certainly not as much as our bigger cousins. If "quality is truly . . ."

is more than just a slogan in our firm, our customer is already looking for a receptive response—I was, for awhile. Reinforce the idea that the company stands behind its products and services, and offer to replace or repair whatever, if or when it seems at fault. Eighty percent of the business will typically come from 20 percent of the customers—the Pareto principle. If we handle the complaint immediately when it first surfaces, we probably won't have to worry about making that second call—the one to our lawyer!

Circumstances. Remember the worn old adage, "the customer is always right," when gathering the details of the compliant. Take a positive (read listening) stance. Avoid criticism, arguments, or blame when discussing the situation. Most people just need an ear to blow off steam, particularly in the initial contact, or they are looking for a timely response. Larger problems may require us to call back and follow up; hence, the initial tone from our first conversation will dominate the ensuing receptivity of our customer.

Our Policy. Never, never leave it up to the staffers (read associates) to determine how they should respond in these situations. We're not facing a media crisis—not yet anyway—but we need to instruct our people on how to respond. Employee training programs are like cutting grass in the summer: we have to mow regularly if we want to maintain a fresh manicured look. Our policy should include the following points: always assume the customer has a legitimate complaint; be sincere and tactful; concede to the customer before contending; never say the complainer is unreasonable; get the facts; and respond immediately. If we sent the wrong item, dispatch the correct item immediately. If a credit is outstanding, get it issued and sent the same day. If it's a lousy meal, replace it or at least offer dessert, coffee, and an after-dinner drink. If the product is a lemon, arrange for a dealer to inspect it and offer a future rebate or free service. If we need to refer the call to another department, call ahead of time to brief and prepare our kindred, particularly if we are deferring to the dreaded "service department!" Where possible—and always on major accounts—follow up with a written note of apology in a sincere tone. We must make them a believer in our company and our products and, above all, a continuing customer.

Reinforce with the staff that the complainer is already a customer that we had to win and that the customer is approaching us with a problem. The corollary to this is the proverbial one that got away. Recognize that this problem-solving role gives us the advantage of being of service and building a continuing, profitable relationship.

The complainer is already a customer that we had to win who is approaching us with a problem.

We might not be able to turn lemons into lemonade, lubed vegetables into meals, nor confetti into air tickets, but we just might preserve our existing customer base while building new customers through word of mouth. If we don't choose this route, the worst that can happen is we might lose them, their children, their family, friends, professional associates, business contacts, acquaintances, or any stranger willing to lend an ear.

TELEPHONE MUSINGS

How do we view the telephone? As a source of irritation? As our direct (voice) or indirect (email) pipeline to the world? As an irritation, the telephone can be our undoing; as a pipeline, our potential salvation.

The telephone is both powerful and precarious, since without the distraction of facial expressions, the potential for intimacy is increased through the tone of our voice. The very technology that amplifies our voice amplifies our emotions.

Speaking with openness and sincerity can multiply our effectiveness with clients and associates. Portray fear and a closed mind, and a single call can create a lasting negative impression, undo years of goodwill, or break a friendship. Calling at the wrong time or being pushy will make us out to be insensitive and crass.

To develop a comfortable telephone style, we must simply remember that the telephone is an extension of ourselves. Put aside other distractions, such as reading the mail. If we're natural and courteous, we'll convey the correct impression.

Telephone Manners Are Important. Since we cannot know how the person we are calling is feeling, we need allies, the people who work with and for our party. Be nice, especially to secretaries and associates. Like all of us, they cherish hearing their own names. Respond accordingly; write them down for future calls. Secretaries are often charged with guarding the entrance to the king, and convey their feelings appropriately in messages left for the boss. A key point: consider their position. Not only do secretaries have to do their respective tasks, they must deal with complaints and any number of nuisance calls. Don't be an additional nuisance by launching into a pitch and conveying desperation. If we put a smile in our voice, it'll show through.

When we do get through to our party, we need to be courteous and check that this is indeed a good time to talk. Setting the tone for an honest and unhurried conversation will always work in our favor. We should quickly identify our subject matter, outline any points to be resolved, and reach agreement on the next steps to be taken. Limit our conversation, stay focused, and don't try to discuss too many subjects lest we confuse our audience. If the other person brings up a point we're not prepared to discuss, postpone the discussion to a subsequent call.

Remember, the people who answer our phone are key representatives of our company. The initial impression they make will paint an image of us and our company. Make sure their tone of voice conveys an "up" personality, friendliness, and a sincere impression that the business is important. Their attitude must be a true reflection of what others can expect in dealing with us and our company. Negative people do not belong anywhere near a telephone.

One of my pet peeves is being put on hold for an extended period. Usually, this is associated with being forced to listen to some kind of intolerable background music. It's bad enough to be trapped on the phone, but worse not to have a quiet moment of solitude to oneself. If we've identified ourselves, we can't risk creating bad feelings by hanging up. Conversely, if it's our practice to place callers on hold, have someone touch base with them frequently, asking if they would prefer to leave a message rather than to remain on hold.

On the other side of the fence, when people won't take our calls, this is a clear signal that they don't want to face a problem. Whether we have become identified with a problem, or are perceived as crass or overbearing, we are dealing with a conditioned response. To break the pattern, people often try to adopt a ploy or use a gimmick, but such approaches clearly miss the mark. This further exacerbates the problem since all of us resent being used or tricked. The best advice is to back off. Start out fresh with a new approach in the future, such as providing some service to their existing account. Be sincere. Learn how to become part of the team and not an outsider.

If we want to avoid further harassing calls, we can take the call ourselves and be direct. Spoon out some strong medicine; tell the caller that we are displeased, that we prefer to take our business elsewhere, and that we will not take future calls. It's better to suffer a little discomfort now than to waste precious time later dodging unwanted calls and thus postponing the real issue.

Knowing when not to make a phone call, or when not to send an email, is also important. Never express anger over the phone or in an email. It's almost always guaranteed to work against us. Getting emotional will affect our relationships, credibility, and work atmosphere. Also, avoid putting pressure on the other party. It's just as easy for them to cut us off as the other way around.

Hanging Up. Never hang up in anger. Rather, we should hang up with a smile on our face and, where appropriate, an action to move business forward. Don't be a bear. It is a pleasure to do business with us.

Their Voice Mail. Face it, we don't like talking to machines, but they are a fact of business life. When we call, be prepared to leave a message on a machine. Keep it simple and don't be cute. When shouldn't we leave a message? Don't leave a message if this is our first contact and we are concerned about creating a poor first impression.

Our Voice Mail. Substituting a machine for a person does not abdicate the image our message creates of us. Our message should project confidence. Be brief and businesslike. Unless it's our home line, forget the rock music and the jokes. A simple and short message such as, "Hello, this is Bob Muir. Please leave your name, number, and a brief message after the tone. I'll return your call as soon as I can." If this approach isn't

personal enough, transfer the calls to a competent assistant, or set up an answering service.

Substituting a machine for a person does not abdicate the image our message creates of us.

Remember, the telephone is an extension of ourselves, and it's as sensitive and subtle as we are. To be truly effective, treat people as we like to be treated. To gain entrance to the inner sanctum, be particularly courteous to the associates and secretaries with whom we must deal. When we do get through to our party, identify the subject, limit the conversation, stay focused, and agree on the next steps. Regard the telephone as a pipeline and keep it open to the world.

11

Dealing with the Problems of Fitting the Pieces

- The Quality Concept: Great Tool, Terrible Master
- Crisis: Product Failure
- Unplanned Sales Leads Can Lead to Nowhere
- Pitfalls Lurk in Simple "Make or Buy" Issue
- Credit Policy
- Keeping 'em Down on the Farm
- Surviving a Media Blitz—Without Getting an Ulcer

When the mother of the great warrior Achilles bathed him in the immortal waters of the dreaded River Styx, he became invulnerable. But there was one place where the magical waters did not cover him - the ankle she held him by. This was the only part of his body that an arrow could pierce, and it was to be the cause of his death. We too can be vulnerable. Just when we thought it was safe...here come the sharks - quality, product failure, 60 Minutes *on our doorstep, and deadbeat customers.*

DEALING WITH THE PROBLEMS OF FITTING THE PIECES

THE QUALITY CONCEPT: GREAT TOOL, TERRIBLE MASTER

American industry saw quality circles as a solution to overcoming its manufacturing problems.

In its original form, quality reflected its aristocratic roots (quality stock) and was later developed as a marketing buzz word. It conveyed the sign of the best, new, improved, upscale, etc. In a marketing sense, quality meant that we could demand a better price. If we wanted quality, we paid for it. Quality now is the presented, and accepted, norm because who would buy any product that is not quality? Recently, we have seen madness pervade the so-called quality stakes competition, called the Malcom Bridge award, where the Fortune 500 companies try to outdo each other in presenting a "quality" plan for their quality products.

Let's start with quality in Japan. Why did Japan adopt the Deming theory of quality? After the war and through the 1960s, the quality of Japan's products was lacking. In the 1970s, with the advent of electronic stereos and cameras, Japan slowly regained its prestige, although for many years American products were preferred in Asia over Japanese products. This preference still exists in Japan for so-called American luxury goods! Another sidelight, in the 1970s, Japan practiced a double standard in that most products were produced in two forms: domestic and export models—I always bought the domestic version!

When the Japanese applied Deming's theories, it gave immense relief to the "Time and Motion" experts throughout the world. These were the people with stopwatches who ran around factories trying to trim seconds off manufacturing cycles and eliminating staff—the unions loved 'em! (Not!) They were also the bane of my existence in school—I remember suffering through a 2-hour lecture on how to use a stop watch!

There is no doubt that Japan has enjoyed overwhelming success in introducing the concept of quality in a manufacturing sense. This is most evident in the concept of a quality circle applied to the production of goods and services. American industry saw this as a solution to overcoming its manufacturing problems. Clearly, it wasn't. I think we need to step back and take a look at why the quality circle concept has worked much more successfully in Japan than in America to date.

Western philosophy teaches top-down management—planning and direction are diluted progressively down a multitiered structure with implementation left to the worker at the bottom. Contrast this with the Japanese system under which initiatives arise from the lower and middle management ranks of the companies. The right to change, and the

right to propose manufacturing improvements, resides with middle management in Japan. This approach encourages considerable initiative on the part of lower management and consequently, unlike in the west, few supervisors feel insecure or threatened by the performance of their junior staff.

Japan then is much more able to accept the concept of a quality circle by which all the workers are responsible for the ultimate quality of their product. This division of responsibility and rewards also tends to decrease counterproductive personal, professional, and interdisciplinary rivalries. In short, particularly with new projects, consensus is reached almost immediately upon adoption. Of course, the price paid is the time it takes to reach consensus before adoption, which is the reverse of the U.S. system. Which system is more effective? There are no right answers to this question. While the Japanese quality circle system is much more effective in terms of cultivating people than America's system, it sometimes lacks the broad vision required of the leader to set a company-wide perspective.

More recently, we have seen the quality concept go full circle, with the development of the concept of quality management. Quality management is often touted as a panacea to overcome the various management problems confronting most major companies. It isn't!

Skeptically, of course, quality management meets the criteria of any good management tool: it generates a lot of paperwork, it allows supervisors to avoid contact with staff and workers, and it encourages management not to focus on the real issues confronting a company. Quality management appeals to the American system since it allows management to practice its top-down philosophy. But, quality management sometimes fails to address the critical need to motivate and reward performance. We can practice an awful lot of quality management without generating any business!

Clearly, under the current wave of mergers and acquisitions, American employees feel less inclined to believe that they have an identity and belong in a company than do their Japanese counterparts. In the midst of downsizing, imagine for a moment a U.S. employee talking about "my company" as we often hear in Japan. Most of the time our employees view their jobs and their occupations as a source of livelihood to support a lifestyle and a family.

We're all familiar with the 5 o'clock whistle and the "on-your-mark, get set, I'm outta here" line at the door at 2 minutes to 5. Is your office a ghost town at 5:01 pm? The message is, "how much time do you want to buy from me because I am only willing to sell you 8 hours a day!"

Quality management does not really address the need for participative management and identity. In fact, I've heard certain contemporaries make jokes about the "lemming"

theory of quality management. For those unfamiliar, lemmings are small animals that regularly self-destruct by casting themselves off cliffs.

Quality management certainly has a very valuable place as a tool in today's repertoire of management tools as companies seek to reengineer, or transform, their business systems. However, it is not the panacea some of us would like to believe. It must not be used to deny some of the key vision, people, and business development problems confronting organizations.

What are some of the real issues? They might begin with product failure!

CRISIS: PRODUCT FAILURE

Sales are plummeting and there's a strange negative attitude toward our product in the market. Profit hopes have been dashed. Salespeople are clamoring for more promotion money and pricing concessions to clean out excess stock. Production people are bracing for cutbacks and layoffs. Financial people want to cut budgets to limit losses and protect the balance sheet. What should we do?

Go into the marketplace and find out what the users have to say.

Quiz Our Customers. Start at the end. Our customers know what is wrong; they can tell us what is going on. Go into the marketplace and find out what the users have to say. Hire a professional market research firm to frame the right questions and design the market samples.

Use focus groups to quiz customers for deeper attitudes that might remain hidden in more structured questioning. Get into the market and send executives and salespeople into the field to get a feel for the market. Compare what they find with the more formal results of the surveys and focus groups.

Find The Problem. Gather the information as it starts trickling in and formulate ideas. Make a first hypothesis and test it against later data. If the research appears headed in a fruitless direction, change its course. If we pick up a scent, follow the trail.

Even if we have a tentative conclusion, we shouldn't act until we are reasonably certain that we know the culprit. Keep testing our theses until we run out of time. Remember, we are trying to figure out whether we are selling a product with a problem:

- Does it have a design flaw and does it not measure up to its planned specifications?

- Is it satisfactorily engineered, but is not being well received because of inadequate marketing efforts?

- Is it well designed and marketed, but is not in tune with current tastes, desires, and needs?

- Does it suffer from some combination of these three?

Respond. Knowing the reason for a sales collapse is essential if we are to develop an adequate response. If there is a future for the product, decide what we are willing to spend to reestablish it and how much time we have to do that. If a product's day in the market is done, kill it fast. This fatal conclusion, unfortunately, seldom is anything but a last resort. Pride and an excessive need for success in all undertakings can delay management's cutting losses until they are so large that there is no alternative. That is why some product lines tend to become heavy and cumbersome. It takes a crisis to thin them down.

Adjust Production. No matter what the cause of the sales collapse or the planned response, we must adjust output until the problem has been treated. Don't believe the people—still mired in the denial phase—who argue that we can "buy our way" out of the problem with promotion money. It may be that sales will respond temporarily to incentives, but more often those expensive programs just borrow from future sales.

The sooner we balance production with sales, the faster our inventory will drop and cash will be released. Customers know when we are bloated; they will squeeze us on prices until our stock is back in shape.

Revise The Numbers. Now it is vital to step back and take a hard look at the new realities in the numbers. Our projections suffer; a collapse in sales can put our reserves under pressure; our obligations to lenders can become a more critical issue.

Be conservative in financial forecasts. This will force economies on old budgets and even prompt some fresh thinking. A cash crisis could complicate the situation. Let the people know what's coming. Notify lenders and creditors of the revised outlook. Advise both of the company's intentions.

Fix The Problem. If we find that our product design is deficient, the theoretical choices are simple. Redesign it or retire it. Of course, doing the former assumes that the product design people have found a solution and that marketing agrees. Salespeople will have to ensure us that the market still exists, and the financial staff must agree that we can afford the cost of recovery. If given all green lights, launch the product again. Japan's car companies did so after their initial failures and the public bought their product.

If inadequate marketing is the problem, we will have to search for a new approach. It's comforting to know that we still have an attractive product. Its a major challenge,

however, to revive a failed marketing effort. A simple message change, of course, can be accomplished with the help of our advertising agency.

Strengthening a distribution system that is too weak or unable to finance and service our product line is another matter. This problem takes years to remedy, unless we go the way of a buyout or a merger with another company in the field.

Our troubles are also great if the market has shifted from our product. Very little can be done to salvage even a good product if customers have lost interest. Our best course is a "profitable retreat" in which we cease production, sell what inventory remains for whatever we can get, and turn our attention to other opportunities. This does not always mean entirely abandoning our position in a market, especially if we were the market leader. We can just lie low for a while and invest carefully during the downturn if we expect the market to swing back in our direction in the future.

Return. When the timing appears right, we move back into the market with our redesigned product and improved marketing program, win back our customers, and invade our competitors' territory at their weak spots.

When we return, we are committed. Put up the resources needed to do the job. Remember, returning is harder than starting out! We have adversity to overcome; we are saying "forget the past—look at me now." The buying public will be forgiving if the quality is there and if we communicate well. Ask Lee Iacocca.

Don't get carried away by initial success. Increase production slowly. Stay a little bit short. Err on the side of lost sales as a result of short stocks and let demand push up the output. We are coming back; we run lean and protect our prices.

If we come back successfully, we can't be bashful. Proclaim it! Tell the world that we are back and successful. Success is contagious.

Okay, so the product's fine, and we've got plenty of leads, so why aren't we rolling in it?

UNPLANNED SALES LEADS CAN LEAD TO NOWHERE

We can do an awful lot of business development without developing any business is a management pearl we constantly need to be reminded of. This wisdom is particularly apropos when small business sets its sights on generating new customers through a sales lead program. In very few cases does this approach result in the anticipated success; more commonly, the outcome is bitter disappointment.

Let's return to our Harvard Business School approach and examine a typical case study of a sales lead program. We'll consider a typical program that failed, why it failed, and what could have been done to make it succeed.

The Setting. SmallBiz, Inc., has been operating for about 10 years. It has a sales staff of 6 to sell its products. In keeping with most small businesses, sales aren't what they should be (of course, they never are!). SmallBiz's president calls an urgent meeting with his sales and marketing manager on Monday morning to consider how the company could drum up some new business. The sales manager recommends increased publicity to generate new sales leads that his sales staff can follow up on.

Monday afternoon, SmallBiz calls in the HotShot Advertising Agency and gives HotShot one simple objective: create an ad program to bring in new inquiries, as many as possible, since time is of the essence. By Friday, HotShot has worked up the ads, which the president quickly approves. The agency then books space in numerous publications at typical costs of about $40,000. The publications go to press, SmallBiz's ads appear, and, low and behold, they receive over 150 reader card responses in their mail 2 weeks later.

The president is ecstatic! The sales manager collects the sales leads, sorts them by territory, and gives them to the sales staff with specific follow-up instructions. The sales staff run their legs off. At the end of the campaign, much to management's surprise, not one inquiry has been converted into a sale. Reality rears its ugly head. SmallBiz realizes that the $40,000 that HotShot spent on the sales lead campaign has flown the coop.

What's the result? SmallBiz's president complains, "the sales lead approach just doesn't work, and, worse, our sales staff must be incompetent." What went wrong?

What Targets. The first common mistake that SmallBiz made was not knowing its market. A little advance homework would have helped SmallBiz target their market, allowing HotShot to make qualified judgments in selecting the type of ads and matching publications. Also, HotShot could have made decisions on whether to place some ads nationally or regionally.

What should SmallBiz have done? SmallBiz should have segregated its client list by industry groups and income earned. This information would have provided some tools with which to paint a picture of its markets and to build its promotion campaign. For example, let's suppose that SmallBiz finds that 750 clients span 30 industry groups, 80 percent of its business comes from 17 percent of its clients, and the largest income producing group in its local territory contains 14 clients.

A simple prospecting trip through the Yellow Pages would reveal that only 20 companies in the territory are in that industry

Segregate the client list by industry groups and income earned.

group: that's a 70-percent market share, not a good prospective market. SmallBiz knows the remaining 6 companies and they probably know why they're not doing business with SmallBiz. A check through the other industry groupings tells a different story. One industry category, for example, contains 90 percent of the total potential customers, but generates only 5 percent of their total sales!

Hidden Potential. SmallBiz identifies a category that has only 3 customers, but market research confirms a total of 45 companies in that category—an untapped market? By progressively examining each of its 30 industry categories, SmallBiz can evaluate the opportunity for each market segment. To prioritize each segment, SmallBiz must ask itself the following questions. What is the total market for each segment? What is our current market share? How profitable is that segment for us? What is our potential for getting business from that segment? Do we want to spend the time and effort necessary to get business from that segment?

Armed with this knowledge, HotShot could have intelligently selected the right publications to advertise in and rejected those whose readership profiles didn't match the SmallBiz target markets.

Buying Influences. SmallBiz's second mistake was in not identifying the decision makers. If SmallBiz had some understanding of who the decision makers were for their products, they could tailor their ads to focus on the buying issues. In any company, there are the decision makers and the individuals around the decision makers who can influence them. It is important that SmallBiz get its message across to as many members of these decision-making groups as possible. Had SmallBiz studied the decision makers within its industry categories and between categories, it would have noticed that the decision makers' corporate positions vary among the industries represented.

By using this "buying influence" approach, SmallBiz could decide whether or not it should convey its message to different groups of decision makers. In turn, HotShot could have guaranteed SmallBiz results by developing individualized messages relevant to each segment and recommended which segments required response advertising and which segments required direct mail packages.

Sales Experience. Regrettably, most sales lead programs are developed by people who have never had to sell anything. Very often, the president and the sales manager are strong in administrative skills, but lack field experience. This problem can be further compounded if the ad agency account representative has no relevant sales experience either. SmallBiz made a classic mistake. That Monday morning when the fateful decision was made to "do something," SmallBiz neglected to ask the most important people of all—the sales staff. These are the people who are on the firing line daily, who are in the field interacting with the buying influence people.

With the proper questions from SmallBiz and HotShot, the sales staff could have been probed for the right answers. Overall, a sales staff generally takes most of the heat for lack of performance in most businesses, particularly when business is bad. Of course, when business is good, the president usually gets the praise!

Staff Cooperation. Any sales lead program can be torpedoed by the sales staff if they don't fully participate. The sales staff at SmallBiz were peeved by HotShot's approach and the leads generated by the promotion because there were far too many to handle at once. Many were just general inquiries, because the reader card responses didn't distinguish between hot prospects and lukewarm ones. HotShot had drafted a single theme ad to carry the message for all market categories and some were responding for products that SmallBiz couldn't satisfy anyway. The result: the sales staff felt their time would have been far better spent in doing their own prospecting instead of relying on the generated leads. If they don't like HotShot's promotion material, they're not going to be strongly motivated to go out and sell. If they feel the target markets are wrong or the leads are not qualified, they will grumble and, only under duress, follow up on leads.

SmallBiz made another mistake by not deciding in advance what type of leads would require a personal follow-up and how they would handle leads they could not call on. Were they going to telephone or arrange a separate telemarketing program? Were they going to send a form letter, or was it going to be a personal letter? Was it going to contain sales information? Was it going to contain a reply card? How were the customers supposed to do business with them?

SmallBiz also forgot to tell Freda. Freda, of course, is the reliable receptionist who answers the phone and guards the door to the kingdom. All telephone callers go through Freda in order to do business. Because Freda didn't know about the ad campaign, a lot of inquiries were incorrectly directed to different departments. In other cases, when Freda wasn't available and other staff members took the calls, inquirers were often treated in an off-hand manner because the staff wasn't aware that a sales campaign was underway.

If SmallBiz really wanted to develop additional business, it should have done its homework on its clients, consulted its sales staff, prioritized its markets, and identified those segments that could be developed. Freda and others at the front desk could have been primed to charm the socks off the inquirers. The entire company would have reaped the tangible rewards of a highly motivated sales staff, with growth ensured through an expanding customer base.

So the product's fine, sales leads are targeted, and now we're faced with how to take pennies out of the production costs. Do we make or buy?

PITFALLS LURK IN SIMPLE "MAKE OR BUY" ISSUE

Typically, make-or-buy decisions are triggered by the need to reduce production costs in mature products or the need to tool up to produce a new product.

In the case of the mature product, the continuing encroachment of the world economy on local markets forces companies to consider either subcontracted local manufacture or worse, moving operations off-shore to gain access to cheaper labor. A company faced with manufacturing a new product or introducing a new service faces an even more basic decision—whether to "sell or license" before the make-or-buy decision.

Digressing for a moment to the sell-or-license decision, licensing sales and manufacturing rights to a new product is often preferred:

- When an existing business has no effective sales and marketing organization
- When cash may be available, but the green stuff is better spent in supporting current business or R&D
- When the new markets are not penetrable without a "muscular" licensee or distributor
- When the new product requires cross-fertilization to become a salable product
- When the arrangement will ensure a first-to-market situation to preempt competition
- When the business area is not of current interest to management

Address whether the contractor can make our product at a substantially lower price than we can in house.

Assuming the decision is to sell either the new or mature product, management must consider whether to tax the existing resources and facilities by producing the product in house, or subcontracting the manufacture of the new product or service. What factors should management consider in a make-or-buy decision?

We can look at this decision from both the technical and financial viewpoints. Given our preoccupation with the bottom line, let us consider the question from the financial viewpoint first. What is the financial risk from outsourcing production from a contractor? We must address whether the contractor can, in fact, make our product at a substantially lower price than we can in house and help us protect profit margin. Can the subcontractor keep production prices down over a period of time? In other words, can the subcontractor maintain a stable price so that we can establish the product in the market without having

to fight a rear guard action on costs? Then, too, what steps can we take to preserve pricing policies by protecting the "quality" of our product—specifications and inspections? How can we protect the integrity and the credibility of our company by trusting our name to a product made by a third party? Could our entire product line be tainted by one rotten apple?

We must be alert for a few hidden traps—management time and continuity. Perhaps we elected to buy product because we anticipated that to do so could free up a key executive of our company. If that executive is continuing to interface on a regular basis with our supplier, perhaps we're not really getting value for money. Also, there is the possibility that our contractor may indeed hire our staff away.

Finally, the question of continuity both in regard to making deliveries on time and more specifically as to our plan of action in case of a catastrophe at our contractor's facility should be considered. Can a simple fire put us both out of business at the same time? Naturally, we need to contrast this possibility against the financial rewards of this approach.

Clearly, when we are attempting to establish a new product in the market, we can defer the cost of making investments in both equipment, facilities, and staff until that market is established and can be sustained. Minimizing the additional labor burden as we ride the business cycle can certainly protect our cash. We can protect our cash flow by incorporating our production cost as an operating factor in our sales price to our customers in lieu of having to capitalize and depreciate those costs. Furthermore, we gain the hidden reward of access to potentially greater experienced management than we currently have in our own company.

The technical side also contains rewards and risks. On the reward side, clearly the company can gain access to new technologies and new manufacturing methods at a much faster rate than it could possibly incorporate or adopt them into our company. We reduce the risk of (not again!) running afoul of the dreaded not-invented-here syndrome that may occur when we attempt to introduce new techniques into our company. Let's not forget the potential contribution to employee morale both by cross-fertilization through an interchange of ideas with a new company, and also by access to learning new skills and developing additional talents as a result of the exposure to new technology. We must contrast these rewards against the technical risk.

In a similar manner, we face the loss of key people to the subcontractor as a result of this cross-fertilization. Losing key people can expose us to a much greater risk—disclosing trade secrets, technology, and possibly even establishing a future competitor. Someone once said that employee exchanges were the greatest form of free technology transfer. Is it better to have a patent or a padlock on our trade secrets?

There is a more insidious risk of failing to document the key elements of the new product or improvements in the manufacturing process as its evolution takes place. We need to be careful to ensure that we retain access and, more importantly, document this essential information in case we need to take our business elsewhere in the future. Reasonable and measurable performance goals must be set to ensure that the specifications for our product are met by the subcontractor. If we put a third party in business, we need to ensure that we have rights to future improvements. It is far better to negotiate how we will play the game before we start the business with a third party, but, if in doubt, retain some good competent legal advice.

To ensure success in a make-or-buy decision, it is important that our management plan includes careful planning and close monitoring, both from the technical and the financial viewpoints.

PLAN A CREDIT POLICY TO AVOID PROBLEMS LATER

No sale, no matter how large, is worth making if we cannot collect.

Credit is the force that propels goods and services through the distribution pipeline to the final user. While consumer markets thrive on liberal credit to maximize market penetration, liberal credit can be very expensive to small business if it is not properly managed. What should our credit policies be? Should we have a written or unwritten policy?

While it is difficult to formulate a general credit policy to suit every business, there are certain simple and common sense rules that should encompass any policy.

First, it should be fundamental that no sale, no matter how large, is worth making if we cannot collect. Never, never delegate credit responsibility to the sales department; the risks are just too great. Sales people often instinctively side with the customer, particularly when commissions are involved.

Second, make it very clear that all credit sales require the approval of the credit manager. Only the company president can overrule the credit manager. A written policy has an advantage that it is more easily explained to both our employees and our customers.

Third, never make delivery on a significant order for a product or service until credit for the amount of the proposed sale has been cleared. When companies get into trouble, they often look for new suppliers to replace suppliers they may have lost because of poor payment.

Fourth, obtain a minimum of three trade credit references and check them out thoroughly. Do not be fooled by credit ratings; they should not replace first-hand credit information. Credit checking procedures should be quick and efficient so as not to interfere with the prompt shipment of orders and resultant cash flow.

In checking credit references, look in our company ledger files first. Do we have past or current information on this customer? We may want to consider the following:

- How much will this new order increase the customer's unpaid balance and the total receivables?

- What previous high credit has been established with our company or any supplier? What about current accounts?

- How long has the customer been in business and, most importantly, can their management be trusted? All businesses suffer temporary set backs. How the

  customer deals with these setbacks is often the best measure of all. If their management can be trusted, we will eventually get paid.

- Is the order covered by our current policy or do special arrangements have to be made?

- Should we spot check the results of the trade reference services we used? Regrettably, some unscrupulous companies have been known to set up phony trade references.

Bank references can also be helpful, but must not be a substitute for trade references. We may share the same customer as the bank, making it easy for even the most scrupulous banker's opinion of the borrower to be colored.

We should consider the following when preparing our own company's credit policy:

- *The nature, size, and overall objectives of our business.* If we enjoy a high profit margin and a stable overall economy, a liberal credit policy will permit a wide margin of acceptable risk. Recessions tend to quickly change the rules of the game.

- *Our channels of distribution.* Be careful to allow distributors and dealers sufficient time to collect from their customers so as not to burden their cash flow. In direct sales, require that purchase orders be accompanied by part or all of the payment until credit history is established with new customers.

- *The selling price for our product or service.* Industrial products involving large cash outlays may require down payments and continuing progress payments in the various stages of manufacture. Do we need a good faith up-front payment from a new customer before starting our services? Can we reasonably charge a premium for a superior product, better delivery, or better service?

- *The expectations of our customers.* What accommodations have we previously made? How do our competitors arrange their terms? What expectations have our sales people created in securing the sale? What other credit alternatives are available?

- *Preset credit limits.* To save valuable time, establish a credit line for each customer. Base this on the customer's requirements and their ability to pay. Will we offer any cash or trade discounts?

- *Classes of customers.* Place the customers into classes equivalent to good, fair, and weak. Weak accounts are still acceptable credit risks, but must be closely monitored to prevent potential problems from developing. Review the ratings at regular intervals.

- *Rules for dealing with delinquent customers.* Save emotional problems by defining follow up and collection procedures before trying to collect overdue accounts.

No matter what credit policy we set, we must monitor our accounts receivable collection. Whether we use ledger cards, a computer, or an outside accounting service, information must be posted on our deliveries and payments as soon as possible. How else can we ensure our customer has not exceeded preset credit limits?

If our business has computerized the order entry and accounts receivables, it is a simple option to preset limits into the computer for each customer. This eliminates the need for reviewing each and every order. Past due balances can also be programmed for regular review.

The accountant has certain "tools" to give us snapshots of our credit picture. The "average number of days sales" is a typical tool to use and is defined as the ratio of the average accounts receivable balance to the total credit sales per 360 day year. Other useful measures include the "ratio of credit to total sales" and the "ratio of bad debt to credit sales." These latter ratios reflect the change in the company's risk level over a period of time. The bad debt ratio is a broad indicator of the company's effectiveness in approving and collecting credit sales.

"Aging schedules" for accounts receivable are becoming more widely used through computers. They evaluate the liquidity of accounts receivable at a given time, typically monthly. When compared on current, 30, 60, and 90 day intervals, aging schedules can sound alarm bells before credit problems get out of control.

Do not put off defining a collection and follow-up procedure to ensure the timely collection of accounts receivable and the processing of delinquent accounts. Most current account problems involve customer disputes over the quality or quantity of goods and services received, invoiced amounts, and errors made by the customer in computing trade discounts. Telephone calls are usually more effective than letters for correcting these problems.

Delinquent accounts must be identified as quickly as possible and collection procedures commenced after reasonable and tactful approaches have been exhausted. Trade publications can outline the options open to us in collecting overdue accounts. Only we can decide if the collection cost is indeed warranted. Remember, early credit checks can often avoid later problems.

Managing credit in the hope of stimulating sales and meeting the competition is key to protecting our cash flow lifeline. Only through careful and regular management can we realistically hope to balance risk and reward in our changing business climate.

Managing credit in the hope of stimulating sales is key to protecting our cash flow lifeline.

So, we've got over the product, sales leads, sales campaign hurdles, but how can we keep our most valuable resource—our people.

KEEPING 'EM DOWN ON THE FARM

Most of us have written an annual business plan—you know the one that's supposed to be dog-eared from continued use. Each time we pick it up, we remember the countless hours of preparation and revision, the colorful slide pitches outlining each department's vision, the elaborate organizational charts, and the performance standards and expectations that resulted in *the plan*. Perhaps we even introduced a Quality Program as part of the plan to encourage participative management.

With all this planning, however, we're just not feeling right, particularly if we've recently lost some key employees. Quality applied to management theory is not a panacea for solving acute problems. Hindsight tells us that our plan may have lacked substance, the glue that holds the organization together. If our organization is like most, we spend plenty of time analyzing and discussing WYOSBD management (what your organization should be doing). Unfortunately, we all spend less time analyzing WOEHTD management (what our employees have to do)! The result is that there is often

a mismatch between what we would like our organizations to do and how our people actually work. Sometimes the rubber doesn't meet the road.

Here's a quick test to find out if we have fallen into the trap of WYOSBD management. Gather all our key people together and ask them individually and collectively what they will be doing differently as a result of the plan, the vision, the quality program, the organizational changes, and the new performance standards. In most cases, we'll be met by silence, or painfully slow answers that include "more paperwork" and "less time for my real job." A lot of quality programs get lost in paperwork and there's little time left for actual work. If we are guilty, our planning has become a paper tiger. No wonder they want to leave the farm.

If we want to keep our good people, we have to do better than paying lip service to participating management—we have to practice WOEHTD management, which is a close relative of MBWA (management by walking around). We've got to get to know our people (scary), learn their interests, recognize their efforts, and match their skills and talents to the company. Stated otherwise, how do we get 'em off clock watching and just selling us 8 hours of their time? Here are a few suggestions.

Reward and recognize effort as well as success. Handing out liberal amounts of praise is perhaps the first important step in keeping people. Sweeten the pot with various and simple unexpected bonuses from time to time—cash, game tickets, awards, extra responsibility. After hearing the magic of their name, people like to hear that their efforts and successes are noticed and appreciated. Compliments reinforce good work and almost always guarantee repeat and continuing performance. Better yet, compliments establish good communication, which allows us to carry out the next suggestion.

Know the people and learn their interests. We want to keep them as satisfied with the job as possible. The easy way to do that is to marry their talents and interests with the functions of the job as much as possible. Learn about special interests, hobbies, and special courses. This is best accomplished on neutral turf such as chance meetings on the shop floor or brief conversations in hallways or parking lots. We can't make the mistake of only talking shop when we meet people; bantering establishes good communication.

Watch for signs that an employee needs a change. People with plenty of spare time are a definite clue to a round peg in the square hole. Their current job may not be providing sufficient challenge for their talents or, worse, they may have already crashed and burned out with assignments beyond their capabilities. In either case, they're bored and obviously need to be reassigned to tasks that provide the right mix of interest and challenge. In the process, we will be matching the people's personal skills and interests to the benefit of the company.

Set personal development programs. People want to know that they have a future with the company—that personal career and skills development is possible as part of that future. Talented employees will contribute even more if we ensure that they learn the skills essential to performing the new tasks. This could be a simple software class, a marketing seminar, or personal mentoring by a senior staffer. Stress to employees that personal growth is part and parcel of the company and its training plan. We all like to know that we are really going in the same direction. This is a twofer—we not only get to keep our better people longer (yes, some will outgrow us), but we will also find our reputation attracting better talent.

Set growth goals as part of the review process. Money is only part of the motivation equation. Money doesn't solve stress and frustration problems—opportunity and challenge do. Formalize the commitment to personal growth as part of the performance review. In fact, an ideal approach to mutual development is to adopt a 70-20-10 approach: 70 percent of effort to on-the-job training, 20 percent from seminar and workshop experiences, and 10 percent from personal mentoring. Help them to plan for their personal growth and watch stars bloom. Every organization has a lot of talent hidden under the paperwork. Finding it and developing it should be part of the successful manager's charter.

To grow the organization, develop the people. Challenging our people's creativity will grow the organization beyond our expectations. Stifling creativity will cause our people to lose heart and leave the farm for greener pastures.

What's guaranteed to strike more fear in our stomach than anything else—*60 Minutes* at our front door!

SURVIVING A MEDIA BLITZ—WITHOUT GETTING AN ULCER

What's guaranteed to strike more fear into the heart of a small business than an IRS field audit? Or, what's only slightly less painful than being subjected to the Spanish inquisition? If you guessed it—the glare of the spotlights and cameras from *60 Minutes* and milling crowds of reporters, in short, a media crisis—go to the top of the class.

The national press won't wait for us to collect our thoughts and issue carefully considered reports.

They come out of nowhere and suddenly thrust our company into the spotlight. Panic grips our brain since they seem to know what we've done, but we don't! Why have we suddenly become their target? After all, we're not a Toshiba, a Tylenol, or a Bill Clinton. Our lawyer advises us to say nothing, deny everything. Bophal and Union Carbide race through our mind. We're ruined! Have we created an environmental problem or caused an accident? Are our methods of doing business under the microscope?

Whatever the situation, the tone is hostile. The company is on the defensive. Phones ring off the hook at all hours and reporters demand interviews and more information. The national press—*New York Times*, *Wall Street Journal*, and *Washington Post*—along with the television networks won't wait for us to collect our thoughts and issue carefully considered reports. They'll go with what they have, even if it is only part of the story and part fiction at that. How should we react?

Let's assume we are like most businesses and don't have a crisis management program. The day of "no comment" is past. With the communication means available to today's media, those words are interpreted as a confession of guilt. Avoid them.

Time is the critical factor. Our first act must be to appoint ourselves the crisis manager, the person who is both the major absorber of information and dispenser of instructions. We let everybody inside the organization know that we are operating in this role. Don't delegate this task. One route in and one route out is key.

Tell the staff we want to know everything possible as soon as possible. Become accessible to anyone with useful information. Find the trouble spot, go there, and stay there as long as we need to grasp the implications of what has happened. Set up a command post, open lines of communication, and monitor the media for the latest developments. Above all, get on top of the situation and be in a position to seize control quickly.

Track down and identify the facts that caused the problem. Find out who is, or was, involved with the situation. Identify the "influentials"—those (usually) small groups who stand to gain from damaging the firm or those who have much to lose and learn their motivations. Call on them for necessary assistance as the response gets under way. Do a quick and dirty telephone sampling to assess the intensity of feeling among those affected.

Knowledge is power in this situation. We may be surprised to find that the public's interest is a lot less than the media attention would suggest—or a lot more. But, we must know which before we act.

Be objective. Since we can't possibly see ourselves the way others see us, bring in a trusted outsider to provide some perspective. The choice may be a professional public relations firm or simply a wise old head whose judgment we respect. Keep this person, or people, close at hand throughout the crisis period. We will get the outside view of our company that we need—and something of a conscience.

No matter what dire event has taken place, be prepared to tell "our story." We need to reconstruct the facts and interpret them from our point of view. Be sure to give the background information, revealing important, but perhaps overlooked, prior events that may help explain the current conditions. Above all, be honest, factual, concerned, and

willing to accept whatever blame rightfully attaches to the company. Remember IRANSCAM; fabricate and they'll bury us.

Johnson & Johnson's Tylenol case should teach us that whenever the public at large is involved, the most important thing is to protect our company's credibility. With credibility, we can recover our reputation while protecting both our product and our bottom line. Without it, we are in for lasting and permanent damage.

Don't overreact to legal concerns, but probe the lawyers about where the weaknesses are. Analyze the exposure to litigation. Learn what the limits are, what can be said and done, and what words or acts should be carefully avoided. Most media crises are lost by the overzealous protection of legal positions. This stance produces the corporate stonewall, which makes even a sincere, concerned management look ignorant, indifferent, and probably guilty.

Communicate. Make contact with all important segments of the market and customers. We should tell them what we can. Allay their fears, if we can, but stay in touch. Encourage them to phone if they are worried or have useful information to pass on. We don't just bury our heads in the sand.

If we are uncomfortable in speaking directly to the press and public, we should pick a spokesperson: a single spokesperson. We must avoid the contradictions that will inevitably creep in if there are too many voices. Find someone who can tell the story convincingly, and reiterate that this is the person who speaks for the company.

Being the spokesperson is no easy task. A cool, informed, unflappable person is required. It will help if the person looks the part as well. On most occasions, CEO's are the logical choice, but on occasion they may not be suited to the task. In this case, a better choice would probably be a senior executive who has been trained to deal with the media, knows the subject matter thoroughly, and can articulate the company's position. Whoever it is, the spokesperson must be tough-minded as well as congenial. Media people can always smell a pushover.

Be accommodating to the media people. Put aside natural biases until it's over. Develop rapport with the reporters assigned to the story. Keep repeating the story until it sinks in. Encourage the media to bring information for comment, since reporters often dig up news faster and more accurately than any other people available.

Be assertive and don't be provoked. Bad manners are never acceptable and are not condoned on the national media. Keep cool even if abused by ill-mannered reporters. When ambushed by the surprise interview, which is designed to rattle us, we can make our distaste clear by cutting short the meeting. Remember, maintain control. We control the information to be dispensed, and the media people want what we have. Stay closer to the journalists who will report our position fairly. Keep the dogs at bay.

Take a leaf from the "great communicator": make the pitch to the public. Start early and repeat the story as often as necessary to be sure it is being heard. Be consistent; don't be diverted by speculation. If the key information necessary to reach final conclusions is lacking, say so. Then, quickly add that the staff is working on getting the facts out. Do not accept the Ted Koppel approach, the hypothetical case. Remember a premature conclusion that is later refuted by cold, hard facts is hard to live down.

Keep the story current and improve and modify as we learn more. Fess up if unfavorable developments force us to modify it, but carefully explain why. No one blames a company that appears to be keeping an open mind and responding readily to new information.

The final word. To resolve a media crisis, time is of the essence. Even if we are not at fault, letting too much time elapse between the time our problem gets media attention and its resolution will damage the company's reputation, perhaps irreparably. Get the facts. Establish the information pipeline and name the spokesperson. Conclude the matter quickly—before the public and the customers become convinced of the company's guilt and negative publicity buries it.

12

R&D Strategies for Business

- Global Competition—The U.S. Perspective
- CRI, Inc.—The Ant and The Elephant
- Pyrolysis Materials Research Consortium—An Industry/Govn Case Study
- Plastics Computer Integrated Manufacturing Consortium

When Zeus refused mortals fire, the Greek god Prometheus defied Zeus and gave fire to mankind. Zeus' rage and punishment were terrible, but Prometheus was freed by the great hero Hercules whose strength ensured that the world would once more benefit from Prometheus' compassion. Such ancient alliances are the tales of mythology, but these case studies of ongoing, successful, and completed business ventures are real-life examples of how technology-based strategic alliances are structured and how they work.

R&D STRATEGIES FOR BUSINESS

GLOBAL COMPETITION—THE U.S. PERSPECTIVE

The U.S., and most developed nations, are undergoing radical changes that affect their ability to compete both domestically and internationally:

- Erosion of their manufacturing industries and a shift from basic smokestack and rural economies to service and specialty product industries.
- Impact of global competition. The same technology that created the 747 also created the ability to move large amounts of goods and services anywhere in the world within 24 hours.
- Increasing demands on their education systems to produce more scientists and engineers and to accelerate R&D at universities and colleges and in the public and private sectors.

In a survey published by *Research & Development* magazine in the late 1980s, two-thirds of the CEOs of America's top 476 industrial companies said that the U.S. is falling behind other nations in R&D. The corresponding published trade figures for technology-related industries, supported by R&D, suggest they're right. And, except for the advent of China, plus some developments in telecommunications, this picture has changed little in the last 5 years.

U.S. Trade Imbalances
Technology Intensive Industries

Industry	*Surplus/(Deficit) ($US billion, Cumulative 1996)*
Aircraft, airplane parts	10.3
Professional, scientific, control instruments	4.3
Synthetic plastics	4.2
Specialized machinery	3.3
Medical and pharmaceutical products	1.9
Organic chemicals and products	1.4
Power generating equipment	(0.2)
Rubber tires and tubes	(0.6)
Metalworking machinery	(0.7)
Paper and paperboard	(1.1)
Watches and clocks	(1.1)
Iron and steel mill products	(3.7)
TV, VCR, and sound equipment	(5.5)
Electrical machinery	(9.5)
Fibers and textiles	(14.6)
Motor vehicles and parts	(26.4)

Let's talk about how China is changing the picture—for the worse. In 1994, the U.S. imported nearly $39 billion in goods from China while exporting only $9 billion, for a trade deficit of $30 billion. In 1995, it was estimated that China would ship $48 billion in goods to the U.S. for a trade deficit of $36 billion. China is rapidly becoming America's most lopsided trading partner.

Japan, however, is still our major technology competitor. The U.S. continues to lose ground to Japan in communications equipment, consumer electronics, business machines, autos and motorcycles, machine tools, scientific instruments, semiconductors, and steel. The U.S. Trade Delegation, led by Mr. Michie Kantor, has identified seven sectors—cars, car parts, semiconductors, computers, supercomputers, telecommunications, and construction—in which the U.S. would like to improve its trade balance. Meanwhile, Japan has targeted fiber optics, biotechnology, optical computing, synthetic fibers, composite materials, superconductor technology, and aerospace as promising technologies for market domination.

Overlying all this is the simple fact that the end of the cold war has shifted the basis for the relationship with Japan. The U.S. alliance with Japan, built on the need to contain communism in Asia, anchored the relationship even when trade tensions threatened to drive them apart. Economics and technology have now emerged as the dominant issues.

Technology, then, has become the currency of industry and has created a global economy. In the process, technology has become one of the principal drivers of competition, playing a major role in changing industries as well as in creating new ones. Technology is the great equalizer, eroding the competitive advantage of even the most well-entrenched company and propelling newcomers to the forefront. Sony's use of the transistor to gain market dominance in the key sound equipment industry over the U.S. giants—RCA, General Electric, and Zenith—is one example. Technology is continually changing the rules of the game.

Technology is the great equalizer, eroding the competitive advantage of even the most well-entrenched company and propelling newcomers to the forefront.

Technology transfer is the buzz word of the second half of the 1990s, with Japan often quoted as an example of an economic miracle built on technology. For a total cash outlay of about $8 billion, post-war Japan acquired the cream of U.S. and European technology. A united Europe in 1992, a resurgent united Germany, and the opening up of the Communist bloc is accelerating the impact, and the need, for new technologies in the 2000s. The rules of the game will change even faster.

State and federal governments are trying to get into the technology game both directly and indirectly. The federal government, under its theme of making America more competitive, has passed legislation that allows businesses to acquire intellectual properties (read embryonic technologies) from U.S. government labs and universities.

The state of Michigan has poured millions of dollars into its Michigan Modernization Service program for small and medium manufacturers. The problem isn't money—the U.S. traditionally still outspends Japan by 2 to 1 on R&D investment. The problem solution is in the people and the need to be market, customer, and demand driven—Japan produces no product without a large target consumer market!

In turn, business has learned that it is often substantially cheaper to license, or buy, a new development than to invest in costly in-house R&D. However, the private sector still views the government sector with suspicion. We have a long way to go to break through the bureaucratic red tape and create the essential partnerships.

Because we live in a time when there are more scientists and engineers alive than ever before, we have a veritable flood of technologies—witness the increase in patent applications worldwide. In fact, there's more technology than the private or public sectors can possibly fund for investment purposes and remain globally competitive. (This is not well appreciated by most entrepreneurs when approaching corporate partners and government for support and interest.) The same excess of scientists and engineers further compounds the problem by shortening the technology window.

Witness the exponential increase in the rate of innovation. From the steam age, to the industrial revolution, to World War I, it took, on average, around 100 years for technology to have an impact. In today's society, that window has shortened to some 7 years in most industries and 14 months for computer software. Professionals and technicians who were once educated for life now find their skills obsolete within 5 to 10 years with projections of 50 percent of our current workforce skills obsolete by the year 2000—a skills drought.

The influence of technology on the skills drought is best evidenced by an example with the simple average auto mechanic. In her past life, when she was Secretary of Labor, Elizabeth Dole, in an article published in the *Intercom Journal of the Society of Technical Communication*, August 1990, noted that in 1965 "the average mechanic needed to understand 5,000 pages of service manuals. With this knowledge the mechanic could be reasonably certain of fixing any car on the road. Today, the average mechanic would need to comprehend 465,000 pages of technical text to accomplish the same task."

Good science has always been good business. A 1989 study, by *Business Week* magazine, of 897 companies in 19 industries demonstrated that the strongest R&D firms, regardless of size, had average growths of 11 percent in sales and 18 percent in profits. In manufacturing, the respective figures were 16 and 31 percent. The study was based on average R&D funds per employee to remove bias from major firms.

With the increasing costs and sophistication associated with R&D, how can business and industry respond to the challenges of innovating new products and processes to

remain competitive in the world scene? How can smaller nations like Australia, with less developed manufacturing bases, and larger nations like the U.S., with a declining manufacturing base, remain competitive? How can small business, with significant less resources, gain access to the vital R&D and new products critical to its growth and survival?

In these case studies, we'll examine several potential new business initiatives that respond to these challenges. In particular, we'll talk about several personal cases, that I'm familiar with, showing a trend toward using external R&D and novel business arrangements to make businesses competitive. We'll talk about ants (small business) and elephants (Fortune 500 businesses), high-tech companies, government and industry alliances, university and industry programs, and we'll conclude with the future role of the not-for-profit research institutes as servant to business, industry, and government.

CERAMIC RESEARCH INC.—THE ANT AND THE ELEPHANT

Ceramic Research, Inc. (CRI), is an example of an R&D start-up company funded with seed venture capital to develop and commercialize unique technology. Typically, an R&D start-up company is formed to develop and retain intellectual property rights (patents and know-how) relating to a specific technology. Seed venture capital from one or more sources is provided to the owner of the base embryonic technology in return for a significant shareholding in the company. If the R&D is successful, such rights or shares may subsequently be sold to third parties, or used to leverage additional rounds of financing to market and sell products from the research.

An R&D start-up company is formed to develop intellectual property rights relating to a specific technology.

In late 1989, CRI signed an agreement with the DuPont Company (Wilmington, Delaware) to transfer patent rights and technical information on a novel laser-based process that could be used to produce ceramic fibers for various applications. The agreement was the result of a 3-year search. The search brought inquiries from more than 100 Fortune 500 and Japanese companies—Boeing, Alcoa, and Sohio among them. The overwhelming response required that they methodically select the right partner, including arranged meetings and presentations tied to secrecy agreements to protect both parties interests. CRI is an example of how research, technology, venture capital, Fortune 500 companies, and international business interests were successfully combined. The strategy used to attract the interest of DuPont and some other major companies contains some valuable lessons.

The CRI story is also the story of why and how an ant sought and found an elephant for a partner. In dealing with an elephant, one is confronted with three major problems: how to attract the elephant's attention, how to get the elephant up on its feet, and,

critically, how to make sure the elephant goes in the right direction once it is up and running.

Why ceramics? Most people associate ceramics with fine china or clay pottery of brittle, brightly colored materials. However, there is another class of ceramics, known as fine or advanced technical ceramics, which is causing a quiet material revolution in a number of industries. Fine ceramics are lighter, stronger, and harder than steel. Fine ceramics are destined for application in everything from aerospace vehicles to automobile engines, from batteries to integrated circuits, from medical diagnostic devices to cutting tools. Not since the advent of plastics has there been such materials with such promise of affecting us all. DuPont typically understated corporate interest by commenting that "DuPont's purpose for acquiring CRI's technology was to assess the commercial feasibility of the technology as part of DuPont's commitment to high-temperature materials."

CRI's original charter was to fund the R&D to confirm the feasibility of the idea to use a laser to produce fine ceramic materials. As a small business, CRI faced the typical problem of how to investigate the novelty of a new idea without its own R&D capabilities. CRI hired its uncle, Midwest Research Institute (MRI), one of the US's leading not-for-profit research institutes, to provide the necessary support and services—it's always cheaper to buy specialty services. Using MRI's staff and facilities, CRI was able to internally demonstrate the feasibility of the CRI process. The process was named after the company.

The early R&D work produced sample quantities of carbon, silicon, silicon carbide, silicon nitride, and boron fibers with varying degrees of success. Materials produced from single component materials, such as boron, were pure and strong, but materials produced from multicomponent mixtures, such as silicon nitride, were more fragile. CRI was not convinced that the process was viable since a number of key technical questions relating to chemistry and laser processing remained unanswered. The story could have ended right there on an inconclusive note, but fate played her card.

About this time, I joined MRI Ventures—one of the partners in CRI and the for-profit subsidiary of MRI. Originally trained as a chemical engineer, I had led a business team for Union Carbide Australia to develop and license a novel separation process worldwide. I was given the job of evaluating the commercial viability of CRI's technology and recommending a course of action to CRI's board.

I was encouraged by the initial research results and particularly so since CRI had produced ceramic fibers in a simple and crude apparatus without input from the industries who might in the future buy, or use, ceramics produced by the CRI process. The inventor had just plugged his crude apparatus into the wall, turned on the juice, and made fibers. Like many R&D companies, CRI was working in a vacuum, not only unaware of the

value of its technology, but more importantly, the opportunities and business it could create for major companies. I also discovered that CRI was dragging its feet on filing the essential worldwide patent applications to protect the novel intellectual property that CRI had developed.

We also concluded that CRI needed a partner to help evaluate, develop, and commercialize the CRI process. It was a simple decision not to seek additional venture capital for CRI and to go it alone since the ceramics industry was dominated by major Fortune 500 and overseas companies. Money alone, lot's of it, would not buy CRI a ticket to the ceramics game and solve its market entry problems. CRI could not feasibly establish the necessary engineering, marketing, and distribution resources to compete with the majors. What did we want in a partner? We decided to look for a partner with the following characteristics:

- Corporate objectives that included long-term commitment, allocation of resources, and growth through advanced ceramic materials technology
- Previous history and experience in commercializing new process technologies
- Availability of, or access to, strong R&D scientific and engineering skills
- Ability to specify fiber properties essential to specific industrial applications
- Ability to measure and characterize mechanical, chemical, and electro/optical properties of advanced ceramics
- Ability to formulate and test composites for industrial applications including life cycle and strength tests
- Ability to test material properties of ceramics at elevated temperatures including microstructural, creep, and fracture analyses under load
- Strong process design and engineering skills to support R&D efforts, to evaluate scale-up data, and to prepare both prototype and commercial plant designs

People skills were key in commercializing the opportunity! It was essential that CRI's partner not be averse to technology originating from outside the company (the so-called not-invented-here factor). It was also essential that the partner's group leaders be experienced in working in joint venture opportunities. A free interchange of ideas and information is crucial to ensure a successful technology transfer.

We thought that the CRI opportunity might appeal to businesses in these three categories:

- Producers of advanced engineering materials or electronic semiconductor substrate products who wanted to protect or expand their current technology base and markets or who desired to integrate into new markets

- Companies seeking to acquire or to license an advanced ceramic materials technology to establish or sustain a competitive business opportunity in engineering materials, electronics, optical, or semiconductor industries

- Suppliers of raw materials for advanced ceramic materials who wished to integrate into the actual manufacture of ceramic fibers or electronic substrate materials

We recommended to CRI's board that CRI might commercialize the technology by one or more of the following business strategies:

- A joint venture company could be formed to develop, manufacture, or sell products in fields of advanced engineering materials, new electronic materials, or new optical and medical fiber products. CRI would contribute proprietary technology rights, inventor access rights and full R&D support services through Midwest Research Institute. The partner would contribute R&D capital, resources, and industrial experience to direct joint ventures into profitable markets. Equity would be divided based upon contribution with guaranteed future rights split to protect each partner's business interests.

- An option/license/acquisition agreement could be granted for specific uses under pending patent and proprietary know-how rights with a technical support agreement. Various options could be built in to match the various stages of developments of the technology including an option to joint venture at a later stage.

- A combined technology collaboration, patent, and know-how cross-licensing agreement could be negotiated with options to future rights to satisfy and protect each party's future business interests. CRI would expect the partner to contribute to the cost of transferring the technology to the partner.

The board seemed pleased (probably relieved) by the plan, installed me as president of the start-up, and sent us naively on our way to commercialize the technology.

A mini business plan, which we describe as a "business opportunity," was prepared. This document described the CRI technology, the potential markets, the R&D status, and suggested business options. It was mailed to a select list of 150 companies worldwide. Press releases announcing the opportunity were also mailed out to targeted media. The response was overwhelming. Over 100 companies responded immediately, among them

Japanese companies clamoring for more information. Feast had overtaken famine. Overnight, we had gone from being technology-driven to market-driven.

To process the responses, we designed a simple five-step program aimed at getting to know the respondents and providing the essential information to allow both parties to reach a conclusion within an 18-month time frame.

1. Respond to their initial interest

2. Arrange a two-way nonconfidential discussion

3. Arrange a confidential technical and economic presentation

4. Agree to produce and permit samples to be analyzed to confirm potential applications of interest to the prospective partner

5. Engage in commercial negotiation leading to a successful partnership

About the same time, I visited Japan to meet with several major companies, including Nippon Steel, Sumitomo Chemicals, Denka, Mitsui, Hitachi, Mitsubishi, and Toshiba. They were all interested mainly in consumer-related new material opportunities in electronics and components. Most people fail to realize the simple trick of getting to the Japanese markets' attention: they are almost solely focused on consumer-related markets.

Through the following year, CRI hosted visits from Boeing, Alcoa, BP America (ex-Sohio), PPG, DuPont, Alcan, General Electric, Englehard, Corning, and others. Two confidential reports were presented to prospective partners as part of the presentation. One report was prepared describing the process technology and the other ballpark investment figures and operating data. The reports were presented under secrecy agreements with each company. The minimum secrecy period was 5 years. The 5-year period was designed to allow CRI sufficient time to process its patent applications and stake out its claims.

I also used the long-term secrecy provision to secure a serious commitment from each company. These long-term obligations, coupled with the detailed confidential reports, required the prospective partner to think long and hard, at a reasonably high management level, before accepting this lengthy period of confidentiality. CRI's disclosures would effectively taint each company's in-house-related R&D efforts. CRI's disclosure thereby created a competitive niche for CRI and for its prospective partner.

Within 6 months of starting its marketing program, CRI entered stage four of the program and commenced making samples for certain key companies. CRI's partners clearly defined the properties and specifications that they needed to respond to the

opportunities within their industries. CRI's role was to meet those challenges, thereby, entering the "D" phase of R&D.

CRI also had to respond to another challenge. The principal scientist and inventor left MRI about this time and I had to negotiate a consulting arrangement with him. Technical support for CRI was supplied by the inventor and by staff scientists at MRI.

This was a time of rapid development of the technology and confirmation of the often quoted maxim: "In science, the credit goes to the man who convinces the world, not to the man to whom the idea first occurred."

CRI's first major success was to produce continuous, pure boron fibers that were rated at a strength in excess of 1 million psi—a major breakthrough. The strength and lightweight properties of this new material made it ideal for several immediate aerospace applications, including Reagan's Orient Express, the successor to the Space Shuttle.

This important development also encouraged Boeing Aerospace Company to negotiate an option agreement to secure potential rights for aerospace applications. Under the terms of the agreement, Boeing was given the right to duplicate CRI's equipment in their facilities and to embark on its own aerospace composite R&D.

Boeing fell into a major category on the original opportunity list: "Companies seeking to acquire or to license an advanced ceramic materials technology to establish or sustain a competitive business opportunity in engineering materials, electronics, optical or semiconductor industries."

I knew that it was fundamental to developing technology that a company must also be able to evaluate, or characterize, the materials it produced. Boeing was expert in the composite field and was able to direct CRI's R&D program in this market. CRI agreed to perform additional R&D in Kansas City for Boeing, as well as to provide technical support. It was clear from the outset, however, that Boeing was in the aerospace business, not in the materials business. Boeing never intended to actually manufacture fibers from CRI's process technology. A manufacturing party still had to be found.

Courting the Elephant. So, Boeing and CRI embarked on the next stage—to find a partner. Through various contacts, CRI developed a list of potential partners that included several heavyweights, i.e., 3M, DuPont, Morton-Thiokol, and Alcan.

Meanwhile, CRI continued to produce samples for evaluation by its prospective partners. Separately, the prospective partners sent business teams to Kansas City and an extensive due diligence began. CRI and the prospective partners studied several elements:

- CRI's technology, including process, apparatus, and future products
- Potential economies of the CRI process
- Market size, niches, and characteristics for projected opportunities
- Fit with existing in-house new business development plans
- Properties and qualities of the sample materials being produced by CRI
- CRI's patent position and potential effectiveness in protecting future markets from serious competitors
- Nature and terms of the proposed arrangement

While it was clear that each prospective partner sought to "control" the technology, their interests in materials and business strategies were different.

Boeing's sponsored partner produced a scenario to develop the technology through boron fibers because of their unique application in the aerospace and defense industries. The other partners chose silicon carbide and zinc selenide fibers as materials upon which to justify their interests to their respective management. Recognizing that CRI had only produced very limited quantities of material for evaluation, the partners had to exhibit a large degree of faith before deciding to negotiate for rights to the technology.

Clearly, the fortunes in the technology game belong to those whose vision of the future allows ample opportunity to change direction when the market calls. DuPont's nylon and Kevlar fibers are examples of materials that found markets that weren't in the original vision of the inventors. The territory represented by patents and intellectual property must be staked out with this expanded vision in mind.

In developing technology, a company must be able to evaluate the materials it produces.

The strategies the potential partners proposed to develop the technology varied from joint R&D proposals, to licensing of CRI's technology and patents, to assignment of CRI's technology and patents.

During that year, I traveled extensively, meeting with the individual partners to analyze the relative merits of each proposed arrangement. It became increasingly clear that DuPont represented the best choice.

Why DuPont? Since the 1930s, DuPont had led the way in developing processes to produce new materials. In each succeeding decade, DuPont had invented the polymer

melt spinning, dry spinning, gap spinning, cold drawing, and fiber sintering processes that were necessary to produce polyester, nylon, and Kevlar fibers. What's more, certain key people at DuPont recognized that CRI's patent position could become a veritable patent machine—protecting far into the future the materials markets that DuPont/CRI might develop. The other candidates did not appear to be so far-sighted in this vision. They wanted to focus on known, shorter-term applications and did not seem to grasp the breadth of CRI's technology. I pushed for DuPont as CRI's preferred partner.

Finally, about 18 months later, CRI and DuPont executed an assignment agreement. CRI assigned its basic technology and patents to DuPont for an initial payment involving seven figures, plus a continuing royalty stream based on a percentage of the sales value for products resulting from CRI's patent. CRI also agreed to put DuPont in business by selling it basic research equipment that would be installed in DuPont's Wilmington facility. In turn, DuPont agreed to assume responsibility for CRI's patents and to embark on a multimillion dollar, multiyear program aimed at the commercialization of CRI's technology.

PMRC—AN INDUSTRY/GOVERNMENT LINKED CASE STUDY

Let's turn our attention now to a different case study, in fact, a combination of case studies involving an industrial consortium of Fortune 500 companies and small businesses, with several disciplines, to develop and commercialize a U.S. government-derived technology.

In 1989, MRI Ventures formed an industrial consortium to commercialize a novel process for producing phenolic-based adhesive materials. Wood waste products—sawdust from saw mills and bark from pulp mills—can be used to produce feedstocks for phenolic adhesives. These materials are used in the production of plywood, composite boards, and molding compounds. The adhesives may also be used in engineered plastics and in new applications such as composites for automobiles of the future.

The Technology. Since 1986, the U.S. Department of Energy's (DOE) Office of Industrial Programs has funded the development of a biomass conversion program at the Solar Energy Research Institute (SERI) (now the National Renewable Energy Laboratory). This program led to the development of a novel pyrolysis process to produce high yields of complex phenolics/neutrals (PN) oils from wood waste. The PN oils are recovered by a novel separation process to extract the phenolics-rich fraction from the oils. Additional research has defined a number of applications for these biomass-derived phenols in formulations for phenol-formaldehyde (PF) resins. The process won an R&D 100 award.

Market. In 1989, the PF resins market worldwide totaled 3 billion pounds with plywood resins accounting for over half the market and the balance being for insulation

and molding compounds. Based on preliminary cost projections of 10 to 27 cents per pound, it appeared these SERI biomass-derived materials could be substituted for phenol costing 40 cents per pound in PF resins.

High risk, early stage technology requires a multiple partner concept.

Given the high risk, the early stage nature of the technology, the need for more than one engineering discipline, the need to scale-up the process, including the design of the fractionation scheme, and the need to evaluate the oils, adhesive formulations, and the resin molding compounds, we determined that a multiple partner concept was essential in lieu of a single-licensee approach. We selected a consortium as being the most effective commercialization route. This partnership approach was endorsed by the industrial review committee, who recommended the consortium be promoted to the industry at large.

Applicable Law. Under the prevailing Bayh Dole PL-9620 law, MRI, as the contractor for DOE's SERI facility, could elect title to inventions and the associated patents. In the case of this biomass technology, the basic patent rights were elected and transferred to MRI Ventures, its commercial subsidiary, for commercialization. MRI further agreed to transfer its future rights under this government-funded R&D program to MRI Ventures as the R&D and the technology developed.

Creating Interest. Interest in participating in the consortium was sought from the industry at large by a 500-plus direct mailing piece to selected companies and trade associations worldwide, together with worldwide news releases to all major technical publications and newspapers. Given the origin of the technology from a U.S. government laboratory, all interested companies were invited to participate in the consortium, but with a preference given to U.S. industry.

MRI Ventures designed the consortium to be driven by industry to ensure the practical application of the resulting technologies—a market-driven approach. The members of the consortium would share the results of a major R&D effort for a fraction of the total cost with incentives to develop additional technologies. R&D risk would be substantially reduced both in cost and time because of the collective capabilities of the individual members.

Our initial approach was to invite DOE to be part of the consortium, but it was later determined that this was not the most advantageous form for the consortium, particularly from the industry's point of view. Confidentiality and patent and technical data rights issues were complicated if the DOE was included. Subsequently, a Memorandum of Understanding was negotiated between DOE, SERI, MRI, and MRI Ventures in which DOE gave its blessing to the formation of the consortium. In turn, in a unique twist, the industry parties elected to go ahead on trust with the draft agreements!

Member Characteristics. What did we look for in inviting companies to participate? We sought U.S. companies; commitment to adhesives-related businesses; in-house R&D in adhesives production or use; market and applications knowledge; adhesives, foams, or composites formulation know-how and process design and development capability; and production, marketing, and distribution of related products.

Our Approach. In June 1988, MRI Ventures produced a business plan that outlined the formal structure of the consortium, its collaborative nature and the R&D mission. The plan also included an optional license agreement and a draft acceptance letter of intent. At the onset, it was clearly recognized by both government and business that the documents were on the leading edge and would be subject to review and revision. While the broad objectives were spelled out in the agreements, certain management, patent, and licensing issues remained to be negotiated.

This plan was forwarded to the 30 companies that had responded expressing additional interest. In August 1988, invitations were mailed to 18 companies who possessed the requisite capabilities inviting them to attend a review meeting at SERI that September. Concurrent with the September meeting, individual technical presentations were made by SERI's biomass technical director and research staff to many of the participants who expressed interest in the consortium. Additional information and updates were continuously mailed to companies as questions were raised during this period.

In May 1989, formal comments and approval of documents for establishment of the consortium were received from DOE. DOE's comments were redrafted into a final proposal and circulated in early June 1989, to the 15 companies that were still interested in the consortium.

The Members. After some 16 months of effort, the consortium was formed: Allied-Signal, Inc.; Aristech Chemical Corporation; Georgia-Pacific Resins, Inc.; Plastics Engineering Company; Pyrotech/Interchem Industries, Inc.; and MRI Ventures, Inc.

In a unique situation, the private sector companies joined the consortium largely on trust. At the time of final execution, the final documents were still in the "original" draft form!

MRI Ventures was licensor and served as the consortium's managing partner and administrator for the other members. The members of the consortium who were invited to participate were chosen so as to represent all aspects of the commercialization process, including current phenol producers, resin manufactures and users, companies interested in building and scaling up the technology, resin sellers and distributors, and companies experienced in development and management of patent portfolios.

Funding. To provide some idea of the funding involved in the consortium, DOE expended approximately $7 million over the 5 years of the consortium. Such funding depended upon appropriations from the Office of Management and Budget. On the industrial side, member fees during the consortium's 5-year term totaled over $560,000 with additional in-kind industry funding in excess of the government's original funding.

Such in-kind R&D included the design and scale up of the pyrolysis reactor, the actual production and fractionation of the pyrolysis oils, the incorporation of the oils into adhesive formulations, and the application and development of products arising from the oils and the formulations themselves. In addition, the consortium considered in-kind research to evaluate alternative feedstocks beyond wood chips, including bagasse, as well as investigating the other fractions present after the PN oil is separated out. On the commercial side, in-kind contributions included market research of the products and their application to industry, as replacement for phenol, the technical evaluation and licensing of the technology, and general technical and business support.

Term. The consortium's initial 5-year term and its continuation during this period was subject to achieving annual technical and business milestones as recommended by the industry members to MRI Ventures. Each of the milestones carried an associated performance standard.

Member Duties. Each member of the consortium was expected to provide a representative to serve on business and technical review committees to advise MRI Ventures, develop commercial applications through direct and in-kind R&D, evaluate the technical and commercial feasibility of the technology and its application within the industry, suggest consultants and subcontractors if additional expertise outside the current membership was required to develop or commercialize the technology, assist with management of the patents and intellectual properties to maximize member benefits and potential license returns, and propose suitable licensing policies based on industrial experience.

Given the novel nature of the technology and its multiple products and uses, MRI Ventures relied heavily on recommendations from industry as to a fair and reasonable licensing policy.

Member Benefits. As part of the consortium documents, MRI Ventures agreed to contractually obligate itself to make the rights available only to the members of the consortium. Membership had its privileges–including participating in a major research effort at minimum risk and cost. Also, members were playing a key role in developing new technology that may have a significant impact both on phenol

Each member had an option to acquire a license to patents surrounding the base technology.

production and downstream products such as adhesives and molding resin compounds. They received proprietary reports and briefings on potential breakthrough technologies that could impact these industries.

At the same time, they were assessing the impact of the technology on their current business interests, as well as potentially improving the economics of existing phenol processes and the production of phenolic resin adhesives and formulations. In addition, the potential also existed to develop new products and markets because of the unique properties of the resins. Furthermore, the consortium served as a network that allowed strategic relationships of mutual interest to be built. Each member of the consortium had an option to acquire a license to both the current and future patents, inventions, and know-how surrounding the base technology. Also, members could invent new technologies and intellectual properties as a result of their own in-house and supplementary in-kind research.

Management. The consortium was not a legal entity in its own right and was designed as a unique hub and spokes. MRI Ventures served as the hub, or managing member, while the other members served as the spokes. This is a unique approach under prevailing laws governing technology transfer from a U.S. government laboratory.

MRI Ventures provided the common link between the business and the technology, while managing cooperative R&D effort between parties with diversified interests: the government, SERI, MRI, and industry. This link allowed industry to obtain simplified access to government-derived technology and was brought about because MRI Ventures was the sole repository of the intellectual property rights. As the owner of the technology and the licensor of the basic patents and know-how rights to the other members, MRI Ventures served as licensor and protector of the technology. Given the sensitive and competitive nature of several members of the consortium, MRI Ventures also served as a conduit to disseminate R&D and business information to and between the members—protecting both individual and collective interests. The consortium was registered with the Federal Trade Commission (FTC) and the U.S. Justice Department under the National Cooperative Research and Development Act. Since the consortium was not a legal entity unto itself, MRI Ventures served as the contracting party when it was necessary to retain consultants for and on behalf of the consortium.

Barriers to Cooperative R&D. In forming the consortium, we had to address a number of critical issues that continue to impact future government/industry R&D in the U.S. These issues include exchange of information, cost sharing, patent and technical data rights, and establishment and maintenance of private and public sector relationships.

In exchanging information, two key questions were asked: To what extent can government and industry interact technically to discuss program details from government-sponsored research? and How can industry protect its competitive interest by

preventing the disclosure of its proprietary information from Freedom of Information (FOI) requests?

On the one hand, the function of government research is to engage in research that is either in the national interest or is of sufficiently high risk to not be of serious immediate interest to the industry. On the other hand, industry's investment in developing and commercializing new government-derived technologies must be protected by minimizing the dissemination of information to potential competitors.

The initial approach was to have DOE participate in the consortium. However, if DOE had been an actual member of the consortium, the potential existed for third parties (including potential competitors) to request information produced in-kind at the industry facilities. Clearly this was not in the best interest of the industry partners and was viewed as a disincentive. Conversely, of course, it is necessary to provide reports demonstrating the proper use of government funds in furthering R&D.

As a condition for providing continued cost-shared R&D funding for the biomass program, the Office of Industrial Programs required industry matching funds. While the direct effect of cost-shared funds with industry is not a problem, an indirect problem can be caused because of the effect of patent and technical data rights of the cost-shared research that was performed at a government laboratory. If DOE SERI shared any of the R&D costs with the consortium, under current law, DOE owns all technical data. Such technical data cannot be protected from an FOI request from a potential competitor.

This led to the creation of two separate R&D programs: the maintenance of the existing DOE program and the consortium program. The DOE SERI program continued with the research "R" and industry developed "D" technology in key applications and product use areas. While the base technology was protected by patents, the base SERI research technical information was not considered to be as valuable as the technical information for the applications and products developed by the members.

Hence, securing patent and data rights (know-how) can be a major barrier to establishing industrial interest in government-funded R&D. Under current law, not-for-profits, small businesses, and universities can elect title to inventions that become patents from government-funded programs. Big business requires a waiver to obtain such title. Technical data, except for a brief period of time during the patenting process, resides with the government and, hence, cannot be protected. The ownership of technical data for inventions developed at government laboratories resided within the government. Clearly, the commercialization of technology requires protection of the know-how that is developed as a part of the industrial manufacturing and scale-up process.

An even greater barrier is philosophy and the actual relationship between the private and public sector. Government, with its mandate to act in the common interest of its

constituency, and industry with a need to develop and protect markets, clearly have views that are very often at opposite ends of the spectrum. In many instances, industry has refused to work directly with the government, sighting the potential competitive risk as being too great to justify the required business investment. Conversely, the 12 civilian government agencies, including DOE, have developed an extensive library of intellectual properties that can and should be used to support industry and to inspire the U.S. competitive position in world markets—the common goal. Under the current political and regulatory climate, a license is required by business to obtain the rights to such technology and the process is often lengthy and difficult.

PLASTICS COMPUTER INTEGRATED MANUFACTURING (PCIM) CONSORTIUM

Now we'll take a look at PCIM, a program launched by a research institute in Michigan. The approach was to link the supply side (multi-university) with the demand side (multi-industry) in a consortium driven by industry needs to integrate computers into the plastics molding injection industry.

The emphasis was on a "try-before-you-buy" plan to introduce computer integration into plastics manufacturing—injected molded plastics in particular. Each consortium member received the results of a $1 million R&D program for a fraction of the total cost.

PCIM was typical of the rationale for investing in developing R&D capability that can be divided into four broad and partially overlapping categories: investing for the future industry; meeting regional needs; advancing the industrial, business, and manufacturing capabilities; and strengthening applied science and engineering education.

Implementing CIM systems can help companies respond to a rapidly changing worldwide marketplace.

CIM Background. Computers and related technology play an ever-increasing role in manufacturing and the issue of computer-integrated manufacturing (CIM) is being embraced by companies developing strategies for the future. CIM can be one or more systems or techniques that a company applies to their operation. CIM systems include just-in-time, total quality management, group technology, manufacturing resource planning, statistical process control, simultaneous engineering, robotics, computer-aided design/computer-aided manufacturing, and computer controls.

Implementing CIM systems can help propel forward-thinking companies past the competitors by allowing them to respond to a rapidly changing and demanding worldwide marketplace. CIM can be used to effect specific components of a company's short- and long-range strategic plans requiring state of the art and breakthrough technologies to maintain and improve quality production and products. The plastics industry, with its rapid growth and many applications, expressed the need and desire to use CIM systems as they can be applied to the industry.

Just as important as the development and application of CIM technology was a workforce trained to effectively implement CIM. Studies showed that 50 percent of the skills of the current workforce would be obsolete by the year 2000. This would require substantial training and development of new skills to keep pace with the ever-changing industry and marketplace standards.

Three critical areas that contributed to the underuse of computed-integrated production in plastics injection molding were identified as education and training enabling current employees to use existing computer-integrated technology and new technologies as they were developed, an understanding of how to efficiently apply computer integration to injection molding at the factory level, and being able to determine at what point and to what degree integration is cost effective.

Consortium Model. A bicycle is perhaps the best analogy to describe how the consortium works. On the standard bicycle, the front wheel steers, the rest of the vehicle follows, and the rear wheel provides the power to move the vehicle ahead.

Relatively simple roles, with clearly defined functions, were applied in a similar way through the Research & Technology Institute of West Michigan. Nine plastic manufacturing firms—3M, ADAC Plastics Inc., Batts Inc., Cascade Engineering, DuPont, IBM Corporation, Moldflow Inc., Prince Corporation, and Wright Plastic Products Inc.—were invited to form the front wheel to ensure the future of their industry by investing in applied research, technology deployment, and training. The frame for this new vehicle was completed by building the back wheel with three West Michigan academic partners—Western Michigan University, Ferris State University, and Grand Rapids Community College. Thus, the strategic alliance, known as the Plastic Computer Integrated Manufacturing (PCIM) Consortium, was born.

The PCIM Consortium leveraged the individual disciplines from the participating schools to target and participate in research, development, training, and application of CIM to the plastics injection molding industry.

The PCIM Consortium was driven by the needs of the industry. PCIM provided the information and tools to improve the productivity, marketability, and thus, profitability of the plastics injection molding companies, their suppliers, customers, and equipment manufacturers. The PCIM Consortium Research and Development Plan specifically targeted the evaluation, application, and deployment of CIM systems, architecture, advanced injection molding equipment, and secondary production processes; investigation of new plastics injection molding materials and composites, equipment configurations, and specific operating conditions, throughputs, cycle times, and controls; and training in CIM and state of the art plastics injection molding equipment operation and techniques.

Unique Features. The consortium brought together the resources, faculty, staff, and capabilities of three educational institutions under the coordination and management ability of a research institute (with no vested commercial interests) with the leadership and direction of industry.

The consortium R&D program was built around a functioning CIM cell to address the equipment, processing, manufacturing, and training issues facing plastics manufacturers. The equipment for the cell was paid for with a grant from the State of Michigan. This type of cell, not available in the U.S. at the time, combined the facilities, faculty, equipment, and expertise of three educational institutions to form a cohesive, fully-operational, state of the art industry unit.

The PCIM consortium cell combined a 250-ton injection molding machine, peripheral equipment such as conveyors, robots, feeders, dryers, monitoring equipment computers, and operators to form a unique, fully-automated system with total state of the industry plastics injection molding capability. The cell could be accessed from remote locations through local area networks and could demonstrate multiplant applications and capabilities, allowing industry the opportunity to direct research efforts and father critical data:

- Preview, test, and determine individual cell component functions, utilities, and performance
- Determine ease-of-operation, installation, troubleshooting, wear, process and product quality control, and cost effectiveness
- Observe real-time production and access comprehensive data on the latest technology—prior to making capital equipment decisions
- Develop training protocols to fully use current equipment

The cell used interfaceable equipment and allowed for incorporation of emerging equipment with the potential to interface with injection molding equipment.

Member Benefits. What benefits did the members derive? Consortium benefits included the following:

- Appointing one representative to serve as a member of the PCIM Consortium Advisory Committee that reviewed, directed, and drove the research plan
- Accessing all technical information and data including annually published business and biannual research reports for the consortium

- Exposing new ideas, components, and state of the technology techniques within an automated environment—and from other members

- Accessing demonstrations, seminars, and training sessions conducted by the PCIM Consortium R&D and management teams addressing CIM for plastics injection molding

- Consulting with academic experts in plastics processing

- Networking with other manufacturers, vendors, or suppliers to discuss common applied research needs and developing strategic relationships

- Nonexclusive rights to license to any patent rights developed during the term of the consortium

- Rights to separately fund additional research in areas of proprietary interest to a member company (additional research was performed under separate agreement with the member through R&TI and the member school)

Deliverables. What did the consortium members get for their money? They received reports on research tasks conducted as part of the PCIM Consortium Research Plan and updates through R&D task reports, university and college training program offerings, focus reports on research conducted on CIM cell as selected by the PCIM Consortium Advisory Committee, seminars and demonstrations offered by the consortium, and state of the industry forums.

Cost and Duration. How much did it cost? Each company paid a fee of $50,000 for a 3-year program in a series of annual payments of $15,000 the first and second year and $20,000 the third year. Each company received the results of the entire program estimated to represent an R&D effort of $1 million, but only paid a fraction of the cost.

What distinguished this consortium from more prevalent business alliances was its fundamental approach to problem solving. The research institute acted as a facilitator to link the demands of business and industry with the best available researchers in affiliated universities and research laboratories. With PCIM, business and industry, as the front wheel, steered the consortium and set the agenda for the research. Members of the rear wheel, represented by the academic researchers, provided additional know-how, technical skills, and resources to power the consortium towards answers sought by business and industry.

Business needs proven technologies as much as it needs innovations.

This response to the demands of business and industry was a critical factor that guided the consortium. Business needs proven technologies as much as it needs innovations. What it doesn't want, nor can it afford, is to fund esoteric research without practical application.

The research institute managed the research effort and guided the consortium. It served as the consortium's managing partner and administrator for all the members—it had no vested interest in competing with any of the members of the consortium. It also served as a repository for any new innovations that might be of commercial value to its business partners. This made it easier to deal with one entity in transferring those rights (and knowledge) to industry.

Part of the mission of regional research institutes is to assist business and industry in deploying technologies to keep them competitive in the global marketplace. The significant advantage, and the distinctive difference between the PCIM Consortium and other alliances, was the response to business. Business and industry leaders set the course for the R&D conducted by the PCIM Consortium. Business understands the myriad problems it faces on the front line of competition daily. It understands the areas in which it must perform better. What it was lacking was a vehicle to carry out an effective program for technical improvement.

PCIM became a novel business strategy for companies to solve common problems, implement new technologies, and fight off foreign competition in plastics manufacturing.

So, why would plastics companies seemingly competing with each other want to cooperate and share information? The answer comes from understanding strategic alliances. A strategic alliance is a communion of resources to pursue business opportunities of like or mutual interests. Firms involved in PCIM, while sometimes directly competing with each other, still understood the need to improve their technical abilities, see ways to continuously improve, and fight foreign competition.

To make PCIM work, we developed the structure for the consortium, created a collaborative and cooperative environment among members, identified and clarified the R&D mission, established goals and time lines for accomplishing the mission, and then recruited the researchers to conduct the applied research.

On the one hand, PCIM was a strategy to upgrade existing processes and deploy new technologies used in plastics manufacturing. On the other hand, PCIM was a novel business strategy—a tool to solve problems in the most efficient manner possible. PCIM participants were able to maximize their investments in research and development by pooling resources and knowledge to yield the greatest return for the lowest risk.

For example, the cost benefit ratio on basic R&D improves significantly in a consortium. An initial per company investment of $50,000 compounds with the contributions of other consortium members. In the case of PCIM, the individual investment yielded the benefit of a $1 million research project with all members sharing in the information obtained at a minimum 20/1 leverage. This is a definite benefit for consortia members, but only one of many ways that it differs from other alliances.

PCIM represented a fundamental shift in the ways of doing business, especially for smaller companies who have been unable to bankroll substantial R&D projects. Yet, these same companies, who have grown over time by being innovative and creative, understand that continued R&D efforts are their lifeblood and opportunity for the future.

The PCIM business strategy focused on the problems in the industry. It was not research for the sake of research. In these difficult economic times, business and industry cannot afford the luxury, nor do they have the desire to fund basic research work without having an idea of the potential outcome and probability of success.

Consortia offer the opportunity to breathe life into companies. They are flexible, cost-effective tools that meet the challenges posed by foreign competitors and respond to the needs of business and industry. They are a strategy that companies, even small businesses, can adopt to move their business to new levels of performance in these competitive times.

The PCIM model can help other industries guide their future progress. Once business and industry establish an R&D agenda, a "disinterested party" can recruit the best brains available from colleges, universities, or government laboratories to address industry-defined problems. From this, budgets, schedules, and time lines are developed to ensure that projects won't get lost in space or orbit out of control. Or, that the bicycle won't fall apart or end up in the ditch.

13

Presenting the Deal

- Rules of the Game
- The Wow Factor
- Management
- Market
- Money
- The Presentation
- InstaCharge Case Study

In Greek mythology, Nike, the winged goddess of victory carries a palm branch in one hand and a garland in the other. With the palm branch signifying a peaceful and successful resolution and the garland the victor's prize, Nike herself personifies the 'win-win' outcome of every successful deal. But first you have to present your deal to the 'money gods'. Try these experienced tips to help you successfully present your deal to corporate partners and venture capitalists as you strive to become a cousin to Nike.

PRESENTING THE DEAL

THE RULES OF THE GAME

Unless we're one of the fortunate few of independent means, sooner or later we're going to have to present "the deal" to raise money to develop our technology and/or provide financing for our company. Shock! Be prepared for culture shock, skeptical nonbelievers, irascible vulture capitalists, and an introduction to the golden rule—"he who owns the gold makes the rules."

When it comes to technology, we can't let ourselves be seduced by its beauty or our own visions (read dreams) of widespread market acceptance. Capitalism is the key driver of international commerce and any potential partner, investor, or management team member wants to make money. Capturing market share means we must take it away from someone else—and we can be sure that is not going to happen easily and without a fight. History is littered with cases of the best technology not winning the sweepstakes: Beta, Apple, etc.

When it comes to technology, we can't let ourselves be seduced by its beauty or our own visions of widespread market acceptance.

In the current economic climate of prosperity, yes there is a lot of money available, but it is chasing the oh so few good deals. With the average banker or venture capitalist seeing 1,000 deals a year, all desktop published with graphics, all promising spectacular returns, how do we get our deal to stand out above the crowd and at least get a hearing? Or, if we're one of the 10 lucky ones selected to present at a venture forum, how do we make a pitch?

At the outset, we can increase our chances of at least getting a hearing by following two simple rules of marketing: (1) qualify our targets to identify our better prospects, and (2) develop a simple "elevator" speech to excite our prospects. There is a tried and true adage in this game that says "you should only invest in deals that you can reasonably evaluate."

Whether we're approaching corporate partners, such as Fluor Daniel, or venture capital firms, such as Kleiner Perkins, we'll quickly find they have an appetite for technologies in specific industries. Corporate partners are interested in technologies that are strategic to their core businesses—good news for us because they can add value through their industry reputation, networking, distribution, as well as financing. On the other hand, venture capitalists typically build portfolios of like or similar technologies where they can build on previous strengths—such as the experience of their partners and the management teams they previously invested in. Unfortunately, many VCs often only consider referral deals in well defined geographic areas—so brush up your network; read more on this later. We can save ourselves a lot of grief and time if we obtain information

on their respective portfolio interests by calling them, checking out their web sites, or doing a little market research.

THE WOW FACTOR.

I coined this term sometime ago to describe my desired reaction when a deal is first presented to me. Human nature being as it is, first impressions do count! If we can't tell them a simple story to "wow" them in those first several minutes, it's going to be tough. In this business, they're investing in people—for several years—and they need to know we have passion to go along with our vision. More importantly, we can articulate a deal that an ordinary person can relate to, one that solves a known problem or creates an opportunity that didn't exist before. I know from first hand experience that the skeptics and "well-meaners" will reject our vision at the outset. Paraphrasing Machievelle, "those that would change the future, have friends in neither camp."

In fact, I often feign initial rejection as a means of qualifying the more serious opportunities. If the would-be entrepreneur dies on the vine, so to speak, when I feign rejection of his or her deal, I pretty much will pass there—particularly if he or she wants the president's slot. Conversely, if the passion barks back at me loud and clear, yet politely, I feel more comfortable that we at least have a good prospect—but we still may be reluctant to offer him or her the top slot. Before one cries foul, let me explain. Most often, the technology derives from the science or engineering side of the house. Forming a business requires experience and a very different set of tools and skills.

What, in fact, is the "money-person" looking for? In evaluating any deal, the potential partner/money person typically looks at 5 main yet simple factors: management, management, management, market, and money. I hope my point about management being key is clear. Good management with a mediocre idea will make a successful business more often than not; the reverse is not true. Let's look in a little more detail at each factor.

Management: Are we capable of successfully growing the business? Do we have a detailed marketing plan? Have we done it before at any time in our career? Do we have experience in the industry? Have we identified our key management positions—and filled them? Is our business strategy sound? Do we exhibit profit-mindedness?

Market: Does our technology work? Is our technology fully developed and ready for market? Are our products unique? What intellectual property do we have, where? What value does our product create for the buyer? Can we create significant barriers to entry during the early days to keep our competition at bay? Is our potential market large enough to ensure a profit? Do we know specifically who our customers will be—do we have a list and/or a best and worst customer profile? Do we have evidence of the need, that customers will buy, and of the price they might be willing to pay? Can we articulate

the unique sales features as to why our customers will choose our product over the competition? Do we have a communications plan to get our message across to our target audience? Do we understand the sales cycle—including potential lag times?

Money: How much do we require, when, and how will we use it? How long will the money last? What exit strategies are possible for our investors and partners? Can we clearly outline the proposed deal? Have we identified, and mitigated, the risks? Do our projections show reasonable growth and cost estimates? What company benchmarks have we compared ourselves too?

So we've successfully jumped these initial hurdles and have been invited to make a presentation to a venture forum and/or a group of senior executives at a potential corporate partner. What should our presentation contain? In what order? Where should we start? What elements should we emphasize?

THE PRESENTATION

Some of the better deals are massaged and shopped for several years before they are finally funded.

A typical presentation will be up to 20 minutes with additional time for questions and answers—if we get that far. Now I can speak from experience with entrepreneurs who have cried foul at being "limited" to 20 minutes. "How can I possibly tell you what I need to in such a short time?" they lament. There are three points to make here. First, if we can't articulate our deal in this amount of time, either we, our deal, or both, are too complex. Second, this is the first meeting—of many that we hope will take place in the future to flesh out the deal. Third, take a leaf out of *Covey's* book: "Seek first to understand before being understood." Take a minute to turn the situation around. The people we're presenting to typically are looking at many deals each week. They are looking for that "special" deal that meets their criteria. We don't need to panic if we're rejected—the odds are typically that 3 deals in a 100 will appeal at first blush! Some of the better deals are massaged and "shopped" for several years before they are finally funded. We need to get some coaching and feedback to continuously refine our deal as we do the circuit. Remember, I said to qualify the audience, and their interests, to increase our chances of success. And, don't forget to ask for a referral when we don't fit.

In our brief presentation, we should cover the following areas in some detail:

- Our vision—what business we want to be or are (provide short history)
- Our defined market opportunity—the drivers for the problem we are solving or the opportunity we are creating
- Key technology advantages—where's the innovation and its features and benefits

- Our business strategy—how we are going to get there

- Our marketing plan—how we plan to create market awareness and sales leads, potential customers, and competitors
- Our management team—who is going to do it, why, and with appropriate pedigrees and experience
- Our financial projections—how big will our business grow and how much is it going to cost to get there including use of funding proceeds
- Our potential investment returns—what ROIs and IRRs can an investor expect
- Potential exit strategies and investment recovery—how our investors and partners get their money (and hopefully profits) out of the deal

What would you think if I told you that you could charge a laptop computer battery or cell phone battery in 2 minutes; 10 times faster than any competing technology on the market. WOW, now I have got your attention. *InstaCharge*™ can.

INSTACHARGE CASE STUDY

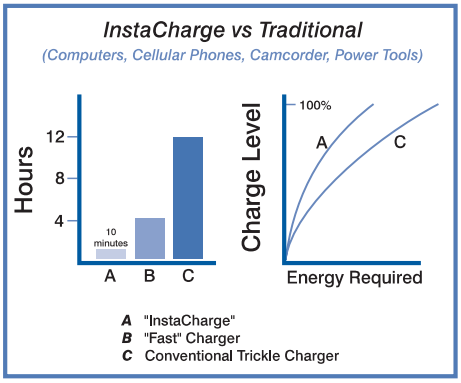
InstaCharge is a simple solution to a clearly known problem in a mass market that you can relate to. In fact, Fluor Daniel recently made an investment in *InstaCharge*.

Let's flesh out some of our presentation pointers in a little more detail and illustrate how to present the information using *InstaCharge* as a real world case study in selected areas. For confidentiality reasons, we can't discuss every area and, in some areas, we will describe part of the area in general rather than specific terms.

Technology Overview. In presenting information on the technology and the state of development of its associated products, remember to cover the following:

- Amount of R&D remaining (with plan and costs) to achieve market ready "commercial" status
- Unique aspects of the product/service (performance, speed, accuracy, efficiency, durability, price, quality, etc.)
- Unique benefits of the product/service and what type of client benefits from each characteristic
- Cost factors associated with product/service

InstaCharge. A new fully demonstrated, market-ready technology that allows rapid charging of all types of batteries. The technology uses a proprietary pulse charging process that is protected by patents and delivered on a computer chip. Advantages include the following:



- Increases battery charging efficiency (e.g., 8 hours to 48 minutes charge time for a golf cart battery and 2:1 reduction in required input power)
- Multiple application markets, including rechargeable batteries for laptop computers, cell phones, electric vehicles, and power tools
- Usable with all chargeable battery types
- Extends battery life up to 3 times
- Battery maintenance reduced by up to 80 percent
- Reduces weight and cost of built-in battery chargers
- Fully developed technology ready to implement on integrated circuit chip sets

Markets Overview. Here's a list of points to consider highlighting:

- Age of the market (emerging, mature, etc.)
- Structure of the market (a few major players versus fragmented)
- Is the market growing, stationary, or declining?
- Any "closed" markets?
- Is the market segmented? How?
- Is the market seasonal or subject to environmental factors?
- Total market size and market size by segment
- Total number of competitors

InstaCharge. The demand is fueled by the increasing emphasis on the use of electric vehicles to reduce air pollution, and by the increased use of laptop computers, cellular telephones, and portable hand tools. Let's look at a basic overview of the battery charger markets and one specific segment, laptop computers as an example.

Battery Charger Market Research. Between 1994 and 2004, the U.S. market for battery chargers is estimated to grow 52 percent (from $787 million to $1.2 billion), according to the market research group Business Communications Company, Inc. (BCC). Of this total, OEM battery chargers (defined as chargers that are permanently installed in a single appliance) account for $150 million in 1994 and $198 million in 2004—a 32-percent increase.

The market for battery chargers cannot be viewed in isolation. It is driven by the market for rechargeable batteries which, in turn, is driven by the markets for the various products that rely on battery power.

Batteries have proven to be the most reliable and cost-effective means of power storage. They are especially useful for powering portable products. Global demand for rechargeable batteries is estimated at 1.6 billion units (source: *Nikkei Weekly*). Japan

supplies 70 or 80 percent of all rechargeable batteries (sources: *Industry Week* and *Nikkei Weekly*, respectively). BCC estimates that the market for non-automotive rechargeable batteries will grow 43 percent (from $1.3 billion to $1.86 billion) between 1994 and 2004.

The demand for batteries is driven by the rising sales of products, such as portable PCs and cellular phones, that use battery power. The market for such portable personal electronic devices has experienced double-digit growth over the past decade, and analysts expect this trend to continue.

Key to the continuing growth of these electronic devices is a power supply that is reliable and portable. The desire for *reliable* power is pushing the market towards batteries that have a long life (long time between charges) and can be recharged quickly. The desire for *portable* power is pushing the market towards smaller, lighter weight products. An ideal design would maximize energy density (available power) while minimizing weight. Other factors driving battery sales include safety, environmental acceptability, and cost.

Analysis of the Portable Computer Market. *InstaCharge* will target OEMs of portable computers (laptops, notebooks, and hand-held types) as one of its first entries into the market:

- The particular advantages of the technology—enhanced portability and use of the equipment through faster recharge, longer time between charges, reduced charger weight, and longer battery life—are especially attractive to users of portable PCs. The present unreliability (short life) of battery power for PCs probably causes users to operate on battery power for shorter times than they would like.
- Makers of portable PCs make frequent model changes.
- PC makers are high-volume purchasers.
- New technology is a major motivator for many consumers.
- *InstaCharge* has been demonstrated for some major industry players (IBM, NEC, etc.) and have received very favorable responses.

The portable computer market is large—estimates range from 10 to 15 million units sold worldwide annually. Analysts and industry players anticipate continuing growth, at a rate of 20 to 30 percent per year, through 2001. For example, the high-technology research firm Frost & Sullivan predicts that world sales will more than double (from $30 billion in 1995 to $80 billion in 2001), growing at an 18-percent compounded growth rate. They also observe that sales of portables are growing twice as fast as sales of desktops. BCC predicts that sales of portable computers will exceed 8 million units per year through 1999 and will reach 14 million units per year by 2004.

There are about 100 players in this industry. The major players are Toshiba, IBM, Compaq, NEC, and Apple. In the market for hand-held computers, the major players are Psion PLC, Hewlett-Packard, Apple, and Sharp.

Business Overview. What type of business: manufacturing, sales, licensing? In what markets? This is the equivalent of a simple mission statement.

InstaCharge. *InstaCharge* will manufacture and sell rapid charging battery systems to OEMs in the portable computer, telecommunications, sports and entertainment, and industrial electric-powered equipment markets.

Business Strategy Overview. What key objectives must be met to meet the mission?

InstaCharge. To meet its mission, *InstaCharge* will:

- Work with OEMs to design in-product or stand-alone charging systems
- Manufacture and sell computer chips incorporating its technology to OEMs
- License its technology in selected markets to leverage its resources
- Provide product development support on paid basis to customers and OEMs

Marketing Plan Overview. Consider the following points as they may affect our plan:

- Applicable government regulations
- Socio-economic or political areas which impact the market
- Identify market segments targeted
- Describe marketing effort for target segments
- Describe sales force (in-house, independent representatives, etc.)
- Describe promotional activities
- Identify major elements of communications plan: use of print ads, brochures, and videos

InstaCharge. *InstaCharge* will capture market share by providing product samples to major OEM customers in selected markets as a precursor to entering into a long-term supply contract. To customers, *InstaCharge's* unique selling point is a key product differentiator allowing them to grow their core business by capturing additional market share in very competitive markets. In these markets, one percentage market point equals $100 million.

Major marketing plan elements include product demonstrations, trade journal announcements, direct marketing and company sales visits in selected target markets, an affordable licensing and chip pricing policy, continued product development with partners, and selected introductions through Fluor Daniel.

Client Overview. Consider the following:

- Geographical considerations (regional, national, global)
- Government or nongovernment
- Business, OEM, or private individuals
- Unique characteristics of purchasers
- Who are they, size, and how many are in each target segment?
- How often do they purchase?
- How do they purchase?

InstaCharge. *InstaCharge* will initially target selected major power hand tool OEM manufacturers (Milwaukee, Makita, Black & Decker, etc.), cellular telephone manufacturers (Motorola, etc.), laptop computers (IBM, NEC, Toshiba, Compaq, etc.) and portable video/camcorder manufacturers (Sony, Panasonic, etc.). Later, *InstaCharge* will target 40 primary and aftermarket charger and battery suppliers, including Boulder Battery, Pace, etc.

Competition Overview. Consider competitors from a global viewpoint:

- Number of major domestic and international competitors and annual revenues
- Number of small operators and annual revenues
- Average age of competitors
- Location of competitors
- Market share of each competitor
- Are some growing and some declining?
- Are there substitutes for the product/service?

InstaCharge. Competitors include both current battery charging manufacturers, current in-design products, and alternative methods to batteries and battery charging. These include switched voltage charging (McColloch and Professional Mariner), implanted battery sensor charging (Bosch), and potential substitutes such as continuous voltage charging (Trojan, Exide, etc.).

Management Team Overview. We are looking to build confidence with our partners and investors. Not only must we identify the key positions, but we must outline the position descriptions for the key management people who are already onboard and define their specific responsibilities. A good presentation will also highlight the holes—those key people yet to come onboard to ensure the success of the business. This section also should address compensation for the people (salary, bonuses, and incentives) who will serve on the board of directors, and who will provide the professional services not fulfilled by company staff.

InstaCharge. The management team consists of a president with 20+ years industry experience, chief technologist—the inventor with industry experience, supported by key Fluor Daniel people in marketing and operations. Key hires include a chief financial officer, marketing manager, dedicated product managers, and manufacturing manager. Position descriptions have been written for these key management slots.

Financial Projections and Returns Overview. The Financial Plan presents the expected bottom line. This section must be based on realistic projections and written and measurable assumptions. Unit sales, sales, and revenue projections overall and by product should be listed. A comparative industry ratio analysis to compare the company with similar size companies should be presented to confer credibility on our projections.

InstaCharge. At the time of writing, it is not possible to share information on projections, investment, or potential returns since such is considered confidential business information. Suffice to say, the expected rate of return will exceed the "multiples" of the traditional vulture capitalists!

Exit Strategies Overview. The final key—how does an investor or corporate partner profit from the venture? For the investor, potential investment recovery strategies include dividends and interest payments, acquisition, management buyout, and an initial public offering (IPO). For a corporate partner, the interest is much more strategic—growing the core business.

InstaCharge. *InstaCharge* is a great target for a corporate partner since one percentage market point equals $100 million worth of business in some markets. From the investor's viewpoint, Fluor Daniel is considering all the alternatives discussed above.

Last, some key points to remember when making our actual presentation. Passion and excitement (read enthusiasm) with a good WOW factor sells. Be "first brain friendly" (read open to people), articulate, professionally dressed, and project business knowledge and confidence. Stay within the allotted time limit so as not to offend anyone—if people are interested, we will have the opportunity for follow-on meetings. Finally, use professional visual aids and product demos where possible. Let our audience touch our product so they can see it is real! Maybe they will believe we're for real too—at least enough to invite us back for further discussions about investing in us and our company!

14

Lessons Learned Along the Way

Pandora was Zeus' creation and his revenge upon man for having accepted the fire stolen from him by Prometheus. As the first woman, the gods presented her with a box into which they had placed all the ills of mankind, with Zeus contriving to make Pandora's curiosity release them into the world. Lest becoming involved in technology-based businesses can seem a little too much like opening Pandora's Box and finding oneself confronted by unknowable difficulties and traps, let's look at a lot of the hard lessons we have learned along the way.

LESSONS LEARNED ALONG THE WAY

Experience, whether in any business, profession or sports, is nothing more than making our share of mistakes. While the winner of the race may not be the swiftest or the strongest, that's who we put our money on–particularly when working in new technologies that have the capacity to change the economics of industries. And so, at the end of the day, we come full circle to known people bloodied by experience with a few basic lessons we might want to heed.

Lack of money is by far the greatest single source of failure for most entrepreneurs.

Cash Is King. Small businesses are always resource and cash limited and will always take on more than they can deliver. Most entrepreneurs will jump off the cliff believing that some investor or angel will catch up with them. Bad news—the law of gravity hasn't been repealed. Lack of money is by far the greatest single source of failure for most entrepreneurs. The money people know that it will always take at least twice as much money as we originally figured—and probably three times as long. At the seed and start-up stages, we can only really control our expenses—defer, defer, defer expenses until we have a sound financing plan in place to carry us for at least the first 2 to 3 years. And, don't be quick to fall for the interim credit-card financing approach to finance the operation while working through "expressions of interest" from several sources. I know that *Inc magazine* has written several stories about entrepreneurs who made it this way but, believe me, these are the exception. At worse, we'll be stuck with payments for many years; at best we'll lose our negotiating position with investors if a large amount of funding has to be used to pay off existing debts. Plan for the long haul and try to build a sound and prudent business basis through patents or proprietary positions while carefully nurturing the fledgling business.

Never Work in a Vacuum. Someone a lot smarter than us will find a way to overcome a specific technical, business, or legal problem that will occur if indeed we have a viable commercial opportunity. Too often, our training causes us to focus inward and to shun outside help when it is offered. This is particularly true of entrepreneurs who have experienced the typical 5-year rejection cycle that most of us go through. It's hard to see light at the end of the tunnel when all we see is another rock being thrown at our "baby" by well-meaning advisors.

Know Where We Want To Go and What Outcome We Desire Before We Start the Game. This way, we do not lose sight of the end result as objections and disappointments confront us along the way. We must plan our part as necessary lest our emotions sway our judgment and our patience expires. I'm a great believer in success through planning. Remember, it's not the plan itself that's the key—it's having a plan with written and measurable assumptions that allow us to determine if we are at least on

the right road. As someone once wrote, be careful, you just might finish up where you want to go—in spite of yourself. Persevere.

Tell a Simple Story With a High 'Wow' Factor. For the few technologies that make it to market, the end of the yellow brick road is a public or private offering of some type. Our ability to communicate excitement and interest is paramount to our success. This is why the "best" technology deals are simple, solve an identified problem that people can relate to, and are easy to explain—particularly to the hard-nosed media. One of the more recent deals we have worked on is for a battery charging technology that can recharge a cell phone or computer battery to 99-percent capacity within 2 to 3 minutes—bet you can relate to that opportunity!

Translate Science and Technology Into Terms That Are Easily Understood by Both Business and Investors. Most business people and investors are trained to place their faith in abstract numbers and to dismiss longer term visions. Worse still, they haven't repealed the adage of "he who owns the gold, makes the rules!" Conversely, entrepreneurs and researchers most times get hung up on the beauty of technology, failing to realize the time and costs involved in commercializing an embryonic technology.

Put together simple revenue and expense forecasts with the assumptions clearly listed and measurable. Investors are looking for confidence in us—that we know what it is that we want to do, how much it's going to take to get there, and most importantly, how we will know when we get there. One of the more simple ways to express this is a new method called Discovery Driven Planning. This method starts with the end in mind—ROI from an income statement—and calculates forward costs and key testable assumptions. To read more about this method, get a copy of the *Harvard Business Review*, July-August 1995, article titled "Discovery Driven Planning," by Rita McGrath and Ian MacMillan.

Gain Industry's Interest. Demonstrate solid interest from industry in product applications for the technology in particular markets of interest. Nothing beats a third-party testimonial in conferring credibility on our opportunity except, of course, an order in hand. Industry sells products, not dreams. Investors want to make money not, unfortunately for the most part, solve societal problems. And, we must be sure we can demonstrate clearly that we understand the competition we are up against! "We have no competition" is baloney—there is always an alternative to our product even if that alternative is to do nothing! It is essential to build early and honest relationships with industry and to deliver, deliver, deliver. . . .

Nothing beats a third-party testimonial in conferring credibility on our opportunity except an order in hand.

Form a Multidisciplined Business Team. A multidisciplined approach is necessary to commercialize technologies. Our team should comprise strong management and marketing together with good technical leadership, as well as a legal capability, to perform the functions necessary to get the job done. I used to think that marketing was 90 percent of the job—innovation 10 percent. Now I think marketing is 98 percent to get a new high-tech product across the chasm that separates early adopters from mainstream users. And remember, at the end of the day when all the marketing jargon is stripped away, there are really only three marketing plays: commodity, differentiation, or niche—which one are you?

Align Our Interests. Whether working with a bank, investors, or corporate partners, we often overlook a simple and very basic fact—we all look at things very differently and expect different outcomes. It is critical that the expectations of each party be understood and aligned particularly when dealing with major cultural differences in size. Family businesses need special attention in this regard—watch out for the "mystery person" behind the scenes if we sense that we're not dealing with the key decision maker. Also, beware of the wounded prince syndrome—the autocratic leader who may be inflexible if/when things don't go his or her way. And don't forget to share an accurate understanding of our respective strengths and weaknesses with each potential partner. Small business is traditionally quick to make decisions, long on technology and short on management, marketing, and sales. Conversely, big business is slow on deciding and often operates with a conservative management committee approach. Successful alignments identify areas of cooperation and introduce flexibility into the relationship early on. The answer: identify champions on both sides of the fence who have a stake in a successful outcome to reconcile differences—before they become major problems.

Make Realistic Projections. Another common problem for most of us is being too optimistic in estimating the sales cycle time and potential barriers to entry, which destroys our key revenue line and our credibility as well. Take a moment to imagine how we feel when presented with a purchase opportunity from a company with which we are unfamiliar—we also go with the tried and true. If we're old enough, we might even remember the famous McGraw Hill ad that stressed the value of advertising—the ad that starts out with "I don't know your company . . ." and progresses to ". . . now what was it you wanted to sell me?" To succeed in introducing a new product, and getting across the marketing chasm, we must identify and have no less a goal than to dominate a niche—reread the section on niche marketing if this is a revelation. This means we clearly understand and, moreover, can articulate our USP (unique selling proposition) to our defined target audience. Our competitors will not willingly give up market share so be prepared for a fight!

Be Prepared To Defend Our Numbers With Independent Confirmation. Business ultimately reduces itself to numbers. We musn't take umbrage when our potential investors, partners, or associates challenge our projections. Because most of us are unknown quantities in this game, people do, and must, place more faith in others when

first presented with an opportunity. Primary market research (testimonials, potential customer confirmations, clearly articulated needs) carries more weight than the traditional top-down secondary market research approach (x% of a $billion market) or a "believe-me attitude."

Be Open, Patient, and Social. Someone once wrote, and I paraphrase, that the smartest man in the world wasn't the person who knew everything but rather the person who knew everyone. Taking technology to market is an extreme exercise in team building that requires a climate of trust and patience. Encourage and facilitate social interactions early on to create this climate and to build relationships amongst all parties: the management team, investors, advisors, partners, and customers. Sometimes a little libation in a nonthreatening out-of-office environment can work miracles.

Seek Early Involvement, Comments, Suggestions, and Concurrence From the Government and Universities When They Are Involved. Extreme patience is necessary in working with the government funding, R&D programs, and legal sections because government has to reconcile a myriad of interests. Likewise, the university environment contains a plethora of cultures and interests. Be prepared to serve as the key interface between customers, investors, and public-sector partners if the opportunity comes from this side of the house. And, oh yes, allow lots of time!

Technology can and does change the rules of the game. Look at a roster of the 100 largest U.S. companies at the beginning of the 1900s—only 16 are still in existence. Fast forward to the Fortune 500 list first published in 1956—only 29 out of the Fortune 100 could still be found in the top 100 by 1992. In fact, during the 1980s, 46 percent, or 230 Goliaths, disappeared from the Fortune 500. The final lesson to be learned: neither size nor reputation guarantees success in managing technology in our global economy. This means that the Davids of our world can indeed smote the Goliaths with their technology slingshots—yes, the small business owner can indeed win the technology game.

Neither size nor reputation guarantees success in managing technology in our global economy.

Appendix Boilerplate Sample Agreements

- Sample Staff Agreement
- Sample Consultant Agreement
- Sample Secrecy Agreement
- Sample Joint-Development Agreement
- Sample License Agreement
- Sample Distributor Agreement

Just give me your standard agreement is a catch cry often heard, but there are no really standard agreements. Why? Every agreement addresses particular facts and relationships and is an invitation to negotiate with what often seems like Medusa--the cunning gorgon, who could turn people to stone. With the increasing complexities of intellectual property law, product liabilities, and warranties, there is no substitute for competent legal counsel to help fight today's gorgons.

BOILERPLATE SAMPLE AGREEMENTS

It is important for the small business person to be familiar with the following sample agreements for SmallBiz, Inc., and to become acquainted with issues that frequently come up during the operation of our business.

For our purposes, we will presume our earlier meeting with Mr. Small, president of SmallBiz, Inc., the Licensing Case Study, was successful and he has asked us to work with legal counsel to prepare appropriate agreements.

NOTE: THE FOLLOWING AGREEMENTS WERE DESIGNED TO MEET PARTICULAR FACTUAL CIRCUMSTANCES, ARE SAMPLES ONLY, AND ARE INTENDED TO RAISE SOME OF THE ISSUES THAT SHOULD BE CONSIDERED AND TO SHOW TYPICAL FORMATS. ALWAYS SEEK LEGAL COUNSEL WHEN PREPARING SUCH DOCUMENTS.

SAMPLE STAFF AGREEMENT

In consideration of my employment by SmallBiz, Inc. ("SMALLBIZ") for the purpose of promoting its interests, and in consideration of compensation paid to me, I agree:

1. During the term of my employment and thereafter, to regard and preserve as confidential all information pertaining to SMALLBIZ's business, projects, and products, the disclosure of which would be prejudicial to the interests of SMALLBIZ, and all information obtained as a result of my employment pertaining to the business, projects, and products of any and all of SMALLBIZ's clients, customers, and associates.

2. To promptly disclose to SMALLBIZ or to its designated representatives all inventions or discoveries which I, solely or jointly with others, make or conceive during the period of my employment by SMALLBIZ, or within one (1) year after the termination of such employment, pertaining to, suggested by, or resulting from any phase of SMALLBIZ's business or any phase of a business or research project with which it may be connected, and to assign all my rights, title, and interest in such inventions to SMALLBIZ or those designated by SMALLBIZ.

3. To assist upon request in every proper way in obtaining and enforcing patents on said inventions or discoveries in any and all countries, and to execute applications for Letters Patent covering said inventions, assignments of said applications to SMALLBIZ or those designated by SMALLBIZ, and such other documents and instruments as may be reasonably requested in connection therewith. So long as I am employed by SMALLBIZ, such assistance shall be without additional charge for my time, but any expenses incidental thereto shall be borne by SMALLBIZ.

Time actually spent by me at such work at the request of SMALLBIZ after termination of my employment shall be paid for at a reasonable rate (to be determined by mutual agreement between myself and the President of SMALLBIZ, or if such agreement cannot be made, then at the per diem rate received by me at the time of the termination of my employment). It is expressly understood that my obligations as to inventions covered by this Contract are not released by termination of employment.

4. I will promptly disclose to SMALLBIZ all writings, art designs, prints, labels, software, and other works of authorship created or developed by me, either solely or jointly with others, during my employment or during the one (1) year following my employment with SMALLBIZ, whether or not during regular working hours, which relates in any manner to the actual or anticipated business of SMALLBIZ, or relates in any manner to SMALLBIZ's actual or anticipated research and development, or is suggested by or results from any task assigned to me or work performed by me for or on behalf of SMALLBIZ. All copyrightable subject matter created by me within the scope of my employment by SMALLBIZ constitute "works-made-for-hire" as set forth in 17 U.S.C. 101 and are the property of SMALLBIZ.

5. That every invention made by me prior to the date of my employment by SMALLBIZ is identified on the reverse side hereof by either (a) the serial number and filing date of a pending application for patent which discloses such invention, or (b) if no application for patent has been filed, a brief description of such invention. This list is warranted to be complete, and only the inventions listed are expressly reserved and excepted from the provisions of this Contract.

6. To abide by all present and future secrecy and security regulations of the United States Government applicable to my work at SMALLBIZ or to information obtained by me as a result of my association with SMALLBIZ.

7. That should I at any time leave the employment of SMALLBIZ, not to take without the consent of the President of SMALLBIZ, or his designated representative, any drawings, blueprints, research, or other data of any description, or other reproduction of any information.

8. During my employment and for one (1) year thereafter, I will not enter into activities competitive with SMALLBIZ or solicit another SMALLBIZ employee to leave his employment with SMALLBIZ. "Competitive activities" includes work which competes with a service or product offered by SMALLBIZ.

IN WITNESS WHEREOF, I have affixed my signature hereto in the presence of a witness the day and year first above written.

STAFF MEMBER:_____

SAMPLE CONSULTANT AGREEMENT

THIS AGREEMENT is made and entered into this _____ day of _____, 199__, between SMALLBIZ, INC. ("SMALLBIZ") and _____ (hereafter referred to as "CONSULTANT") for the services described below:

ARTICLE 1 - CHARACTER AND EXTENT OF SERVICES

CONSULTANT will render to SMALLBIZ personal consulting services during the period _____ through _____ 19__, or such later date as may be mutually agreed upon by the parties to this Agreement.

Such services shall include matters relating to provision of consulting support to further the business and interests of SMALLBIZ and shall include but shall not be limited to the following tasks:

(OUTLINE SPECIFIC SERVICES)

Such services shall be furnished by the CONSULTANT to the best of the CONSULTANT's ability at such times and places as may be mutually agree to by both parties.

This Agreement is made with the CONSULTANT personally, and as an independent contractor, the CONSULTANT will not, by virtue of this Agreement, become an employee or agent of SMALLBIZ.

ARTICLE 2 - CONSIDERATION

SMALLBIZ agrees to pay CONSULTANT as full compensation for services rendered on the following basis:

1. CONSULTANT shall be paid a fee of _____Dollars ($_____) for each hour of time devoted to providing services including necessary travel time if such travel is required to perform services. It is agreed that no reimbursement shall be made for any hours worked in excess of eight (8) hours per day without prior approval of SMALLBIZ.

2. All travel and other reasonable expenses incident to the rendering of service shall be in accordance with established SMALLBIZ reimbursement policy and paid by SMALLBIZ. If such expenses are paid in the first instance by CONSULTANT, SMALLBIZ shall promptly reimburse CONSULTANT upon presentation of proper expense accounts.

3. As an independent contractor, CONSULTANT shall not be entitled to or eligible to participate in any benefits or privileges given or extended by SMALLBIZ to its employees. Nothing shall prevent SMALLBIZ and CONSULTANT, at any time, however, from mutually agreeing in writing to change CONSULTANT's status to that of a regular employee of SMALLBIZ.

ARTICLE 3 - PAYMENT

The CONSULTANT shall present an invoice on or about the first day of each month for services rendered prior to the date of the invoice. The invoice shall contain a brief description of the services performed, the level of effort provided and multiplied by the fee rate, and an itemization of other claimed expenses incurred including required receipts. SMALLBIZ shall pay properly certified invoices covering earned consideration as promptly as practical.

CONSULTANT acknowledges that CONSULTANT is an independent contractor and shall be responsible for all self-employment and quarterly withholding taxes.

ARTICLE 4 - CONFIDENTIALITY

CONSULTANT further agrees, both during the term of this Agreement and thereafter, to keep confidential and not to use, in accordance with accepted standards of business and professional ethics, any information or data developed pursuant to the provision of consulting services contemplated herein, the disclosure of which would be prejudicial to the interests of SMALLBIZ or its clients.

CONSULTANT's obligations under this Article shall survive termination of this Agreement; provided, however, that CONSULTANT's obligation to keep confidential shall not apply to information that:

- is or becomes generally available to the public by publication or otherwise through no act of CONSULTANT;
- was independently made available as a matter of lawful right to CONSULTANT by a third party.

CONSULTANT shall not originate any publicity, news release, or other public announcement, written or oral, whether to the public press or otherwise relating to SMALLBIZ, its business, its clients, or to performance under this Agreement, without the prior written approval of SMALLBIZ.

ARTICLE 5 - INVENTIONS AND COPYRIGHTS

Any inventions, improvements, or ideas made or conceived by CONSULTANT in connection with and during the performance of services hereunder shall be the sole property of SMALLBIZ, and shall be reported to SMALLBIZ promptly.

Without additional charge to SMALLBIZ other than reasonable payment for time involved in the event the services contemplated hereunder shall have terminated, CONSULTANT shall execute, acknowledge, and deliver to SMALLBIZ all such further papers, including applications for patents, as may be necessary to enable SMALLBIZ to publish or protect said inventions, improvements, and ideas in SMALLBIZ, or its nominees, their successors or assigns, and shall render all such assistance as SMALLBIZ may require in any patent office proceeding or litigation involving said inventions, improvements, or ideas.

CONSULTANT shall promptly disclose to SMALLBIZ all writings, art designs, prints, labels, software, and other works of authorship created or developed by CONSULTANT, either solely or jointly with others, during the performances of services hereunder for or on behalf of SMALLBIZ. All copyrightable subject matter created by CONSULTANT within the scope of my employment by SMALLBIZ constitutes "works-made-for-hire" as set forth in 17 U.S.C. 101 and are the property of SMALLBIZ.

ARTICLE 6 - IRREPARABLE DAMAGE

CONSULTANT acknowledges that the damage to SMALLBIZ resulting from a breach of his obligations herein will cause irreparable injury to SMALLBIZ. Accordingly, CONSULTANT hereby agrees that SMALLBIZ shall have the remedy of specific performance, injunction and such other equitable relief as may be declared or issued by a court to enforce the provisions of the Agreement. Such injunction relief, however, shall be in addition to any other remedies provided by law to SMALLBIZ.

ARTICLE 7 - NO SOLICITATION OF EMPLOYEES

During the term of this Agreement and for one (1) year thereafter, CONSULTANT shall not solicit or encourage an employee of SMALLBIZ to terminate his employment with SMALLBIZ.

ARTICLE 8 - ASSIGNMENT

Since the obligations provided for herein require CONSULTANT's personal performance, CONSULTANT's rights, interest, and obligations as provided herein may not be assigned to any third party.

ARTICLE 9 - SEVERABILITY

CONSULTANT agrees that the covenants, and any portions thereof, in this Agreement are severable. The invalidity, unenforceability or reformation of any convenant or portion thereof shall not affect or impair the binding effect or enforceability or any convenant or portion thereof.

ARTICLE 10 - GENERAL

This Agreement shall be construed, and the legal relations between the parties determined, in accordance with the laws of the State of Missouri.

If any provision in this Agreement is held invalid or unenforceable by a court of competent jurisdiction, it shall be considered severed from this Agreement and shall not serve to invalidate the remaining provisions thereof.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement.

SAMPLE SECRECY AGREEMENT

Date

Company
Address
City, State, Zip

Gentlemen:

Referring to our earlier correspondence, you have expressed an interest in further evaluating certain proprietary flexible coupling technology owned by SMALLBIZ, INC. ("SMALLBIZ") and which is the subject of United States Patent No: _____ ("the TECHNOLOGY"). We market the TECHNOLOGY under our registered trademark, FLEXICUP®

We, for our part, believe that you may have the required capabilities and resources we are seeking in a business partner to develop and commercialize the TECHNOLOGY. It now seems desirable that:

i. you be able to understand the TECHNOLOGY in more detail;

ii. based on such understanding, you further comment on your interest and ability to enter into a commercial relationship with us;

iii. you have the opportunity to visit our facilities, to inspect our manufacturing operations in Kansas City, and to permit our staff to make a confidential presentation on the TECHNOLOGY to you.

We are willing to disclose to you certain technical information in connection with the TECHNOLOGY to assist your evaluation.

All such technical information and know-how disclosed to you in connection with your evaluation, whether in video tape, written, or oral form, and reduced to writing within thirty (30) days, or that you may learn from visits to our facilities, is considered proprietary and confidential by us and is hereinafter referred to as "SMALLBIZ INFORMATION."

In view of the proprietary and confidential nature of SMALLBIZ INFORMATION and to provide an appropriate basis upon which SMALLBIZ INFORMATION can be made available to you, we propose the following arrangement:

1. You will treat as confidential all SMALLBIZ INFORMATION which may be made available to you and will not use any SMALLBIZ INFORMATION except as and to the extent necessary to complete your evaluation. However, you need not treat as confidential any SMALLBIZ INFORMATION which is not designated in writing by us as confidential.

2. You agree, for a period of five (5) years from the date of receipt of SMALLBIZ INFORMATION hereunder, not to disclose any SMALLBIZ INFORMATION to any third party without our express written consent. At the conclusion of the

evaluation, if so requested in writing by us, you agree to return to us any written information you may have acquired or developed as a result of the evaluation.

3. You agree to complete your evaluation within six (6) months of the date of your acceptance of this Agreement and to promptly disclose the results of your evaluation to us and to meet with us to review said results at a time and place convenient to both parties. At which time, an extension of time to continue your evaluation, if necessary, could be negotiated between us.

4. For a period of five (5) years from the date of the last receipt of SMALLBIZ INFORMATION hereunder, you will limit access to SMALLBIZ INFORMATION to those employees reasonably requiring same for the aforesaid purposes.

5. Your obligations of confidentiality contained herein shall not in any way restrict or impair your right to use, disclose, or otherwise deal with any other technology, information, or data which:

   - at the time of the disclosure to you, is, or was, generally available to the public by publication or otherwise through no act of your company and/or your employees;

   - was not acquired directly or indirectly from us and you can reasonably demonstrate was in your possession prior to the time of the disclosure to you;

   - was independently made available as a matter of lawful right to you by a third party;

   - is developed by you independent of our disclosure under this Agreement.

6. This Agreement shall terminate twelve (12) months from the date of your acceptance unless extended by the mutual agreement of the parties. Termination shall not terminate your obligations under paragraphs 2 and 4 with respect to SMALLBIZ INFORMATION disclosed under this Agreement prior to its termination.

7. This Agreement may be terminated earlier by either party on thirty (30) days written notice to the other.

8. No right or license express or implied is granted in connection with any patent, patent application or SMALLBIZ INFORMATION to you by this Agreement, and neither party shall be obligated to enter into any further agreement with the other party as a result of this Agreement.

If you agree to proceed on the above basis, please confirm your agreement by signing and returning the enclosed copy of this letter.

Yours faithfully, Accepted by:

SAMPLE DEVELOPMENT AGREEMENT

THIS AGREEMENT, effective as of the _____ day of _____, 199__, by and between

SmallBiz, Inc., a Missouri corporation, having a principal place of business at Kansas City, Missouri, hereafter referred to as "SMALLBIZ,"

AND

BigCat Corporation, a Texas corporation, having its principal place of business at Dallas, Texas hereafter referred to as "BIGCAT"

WHEREAS:

SMALLBIZ owns inventions, trade secrets and confidential proprietary know-how related to certain proprietary coupling technology specifically configured to meet the requirements of SMALLBIZ (hereafter the "PRODUCT"); and

SMALLBIZ has identified and is in a position to exploit certain markets for the PRODUCT; and

While SMALLBIZ has developed certain technical information concerning the structure and the manufacture of the PRODUCT, SMALLBIZ requires the facilities for development of a larger commercial-scale manufacturing process (hereafter the "PROCESS") for the PRODUCT; and

BIGCAT has considerable experience in processes and has equipment for commercial-scale manufacturing of gear and coupling products (hereafter the "EQUIPMENT"); and

BIGCAT desires to assist SMALLBIZ in development of the PROCESS and SMALLBIZ desires such assistance; and

The successful development of the PROCESS may require the disclosure by SMALLBIZ to BIGCAT of confidential information relating to the inventions, trade secrets, and proprietary know-how belonging to SMALLBIZ which information must be protected from disclosure to third parties; and

The successful development of the PROCESS may require the disclosure by BIGCAT to SMALLBIZ of confidential information relating to manufacturing processes belonging to BIGCAT which information must be protected from disclosure to third parties;

NOW, THEREFORE, SMALLBIZ and BIGCAT hereby agree as follows:

ARTICLE I

1. SMALLBIZ shall disclose to BIGCAT information relating to the PRODUCT including specimens of the PRODUCT and candidate techniques for manufacturing the PRODUCT.

2. SMALLBIZ shall provide sufficient samples of representative couplings and technical design data to permit performance under this Agreement.

3. BIGCAT will use the EQUIPMENT, coupling samples and technical design data supplied by SMALLBIZ, guidance supplied by SMALLBIZ personnel, and BIGCAT's own background and experience to refine the techniques for manufacturing the PRODUCT and to define the parameters and operating conditions of the PROCESS.

4. SMALLBIZ will communicate to BIGCAT specifications for a PRODUCT which are reasonably suitable for its intended purpose.

5. With respect to the subject matter of this Agreement, SMALLBIZ and BIGCAT shall work exclusively with each other for a period of one (1) year from the Effective Date, which period shall be the Initial Phase.

6. SMALLBIZ shall pay to BIGCAT one hundred dollars ($100.00) for each hour of use of the EQUIPMENT. The parties estimate that approximately twenty-four (24) hours of EQUIPMENT time will be required during the Initial Phase.

7. During the Initial Phase, the parties shall consult as necessary and shall exchange any information reasonably necessary to achieve the purposes of this Agreement.

8. BIGCAT shall disclose to SMALLBIZ all information necessary to perform the PROCESS or PROCESSES used to manufacture PRODUCT.

9. It is understood that any information owned by either party prior to this Agreement and transmitted to the other party pursuant to Article I shall be considered "Confidential Information" if identified by the transmitting party as such in writing within thirty (30) days after its transmittal, and shall remain the property of the transmitting party.

   It is further understood that any information learned or developed pursuant to this Agreement shall be "Confidential Information" and shall be the property of SMALLBIZ, provided, however, that BIGCAT shall have a nonexclusive, irrevocable, royalty-free license to use the "Confidential Information" learned or developed pursuant to this Agreement and to make, use and sell any invention which is the subject of paragraph 10 hereof, in all fields of use, without limitation, except for the field defined as "flexible coupling applications for power

transmission in the mining, construction, industrial, transportation, and manufacturing industries" which field is retained exclusively by SMALLBIZ.

ARTICLE II

10. Any invention arising out of the performance of this Agreement concerning the subject matter of ARTICLE I hereof and conceived by employees of either party shall be the property of SMALLBIZ. BIGCAT shall promptly notify SMALLBIZ of any such invention and shall execute all documents reasonably necessary to vest in SMALLBIZ title to any such invention and to obtain U.S. and foreign patents therefore. All expenses involved in obtaining any such patents shall be borne by SMALLBIZ.

ARTICLE III

11. SMALLBIZ will buy all of its requirements for PRODUCT from BIGCAT for a period beginning on the date BIGCAT notifies SMALLBIZ it is prepared to manufacture commercial quantities using the PROCESS and ending one and one-half (1-1/2) years after the Initial Phase or three (3) years from the Effective date of this Agreement (hereafter the "Requirements Period").

12. SMALLBIZ shall be obligated under paragraph 11 hereof only so long as the price and delivery terms of BIGCAT are competitive and only so long as the PRODUCT produced by BIGCAT meets the specifications referred to in ARTICLE I hereof.

13. After the Requirements Period, SMALLBIZ will be free to use any supplier of PRODUCT but will continue to treat BIGCAT as a favored supplier of PRODUCT provided BIGCAT is competitive in the then prevailing market.

ARTICLE IV

14. BIGCAT shall take all reasonable precaution to avoid disclosure to any third party of SMALLBIZ's Confidential Information as defined in Paragraph 9 hereof.

15. SMALLBIZ shall take all reasonable precaution to avoid disclosure to any third party of BIGCAT's Confidential Information as defined in Paragraph 9 hereof.

16. The provisions of this ARTICLE IV shall apply for a period of ten (10) years from the beginning of the Requirements Period, provided, however, that the obligations under this ARTICLE IV shall not apply to the extent that any Confidential Information is:

    - already available to the receiving party as shown by a written record in its possession at the time of receiving the information;

    - is or becomes available to the public through sources independent of and through no fault of the receiving party;

    - is received in good faith from a third party without breach of any agreement to which a party hereto is a party; or

- is independently developed without knowledge of the information received under this Agreement.

ARTICLE V

17. During the Initial Phase, this Agreement may not be terminated by BIGCAT, but may be terminated by SMALLBIZ on thirty (30) days advance written notice to BIGCAT. During the Requirements Period, this Agreement may not be terminated by SMALLBIZ, but may be terminated by BIGCAT on thirty (30) days advance written notice to SMALLBIZ.

18. Unless modified by written amendment, or terminated pursuant to paragraph 17 hereof, this Agreement shall expire three (3) years from the Effective Date. It is understood that termination or expiration of this Agreement shall not affect the obligations with respect to confidentiality pursuant to ARTICLE IV or the obligations with respect to inventions and patents pursuant to ARTICLE II.

19. This Agreement is the entire agreement between the parties and may only be modified in writing and signed by both parties.

20. This Agreement shall be interpreted in accordance with the laws of the State of Missouri.

21. This Agreement may not be assigned by either party.

22. Notices required under this Agreement shall be sent to the following addresses:

For BIGCAT: _____

For SMALLBIZ: _____

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed in duplicate by their duly authorized representatives.

SAMPLE LICENSE AGREEMENT

(Discussion Draft)

THIS AGREEMENT is made the _____ day of _____ One thousand nine hundred and ninety _____

BETWEEN

SMALLBIZ, INC., a company incorporated under the Laws of the State of Missouri, USA and having its Registered Office at Kansas City in the said State (hereinafter called "SMALLBIZ" of the one part,

AND

WANNABE, INC., a company incorporated under the Laws of Japan and having its Registered Office at Tokyo in the said Country (hereinafter called "LICENSEE" of the other part.

WHEREAS:

A. SMALLBIZ represents that it owns rights to certain proprietary flexible coupling technology (hereinafter called "the TECHNOLOGY") which is the subject of Letters Patents; and

B. SMALLBIZ represents and warrants that it has the requisite authority to license said rights and further, that said rights are unencumbered and not subject to any claim whatsoever from any third party; and

C. SMALLBIZ possesses technical information and know-how (hereinafter defined) relating to the TECHNOLOGY; and

D. LICENSEE desires to obtain a disclosure of the said technical information and know-how from SMALLBIZ; and

E. LICENSEE further desires to obtain a license from SMALLBIZ to use the patent rights (hereinafter defined) and the said technical information and know-how in the licensed territory (hereinafter defined); and

F. SMALLBIZ agrees to make a disclosure of the said technical information and know-how and to grant a license to LICENSEE subject to the terms and conditions hereinafter set forth.

THE PARTIES AGREE AS FOLLOWS:

1. DEFINITIONS

a) "Licensed Field" shall mean power transmission coupling applications in the manufacturing and mining industries.

b) "Technical Information and Know-How" shall mean the technical knowledge relating to the TECHNOLOGY developed to the point of being capable of commercial use and to the extent that SMALLBIZ has the right to transmit such technical knowledge to LICENSEE.

c) "Licensed Territory" shall mean Japan.

d) "Patent Rights" shall mean the United States Patent No. _____ and any pending Japanese Patent Application and any Letters Patent issuing thereon.

e) "Period covered by this Agreement" shall mean the period defined in Clause 11 of this Agreement.

f) "Effective Date of this Agreement" shall mean either the date first written above or the date upon which approval is received from the Government of Japan if such approval is required, whichever is the earlier.

g) "Licensed Product" shall mean flexible couplings incorporating part or all of the design and technical information described in the Patents Rights or Technical Information and Know How.

h) "Net Sales Value of the Licensed Product sold" by LICENSEE shall mean the gross invoice value received from the Licensed Product less allowances for returns and less (to the extent separately stated on such invoices) all trade discounts, sales, use and other excise taxes and packaging and transportation costs included therein.

i) "Net Sales Value of the Licensed Product used" by LICENSEE but not sold shall mean the standard list price of LICENSEE for the Licensed Product in effect at the time of the use thereof and if LICENSEE shall have no standard list price at such time "Net Sales Value" shall mean the cost of direct labor and materials consumed in the manufacture of the Licensed Product plus _____ percent of such cost in lieu of overhead and all other indirect charges.

2. LICENSE

a) From the effective date of this Agreement and for the period covered by this Agreement, SMALLBIZ hereby grants to LICENSEE a nonexclusive license, without the right to grant sublicenses, under the Patent Rights and Technical Information and Know-How:

i. to manufacture the Licensed Product in the Licensed Field, and

ii. to market and sell the Licensed Product in the Licensed Territory.

b) The rights and licenses granted by this Agreement are personal to LICENSEE and LICENSEE shall not at any time assign, charge, or otherwise create liens or encumbrances upon such license or deal with the rights granted hereby or by the said license without the previous consent in writing of SMALLBIZ.

3. CONSIDERATION

A) Lump Sum

a) LICENSEE shall pay to SMALLBIZ license fees in accordance with the following schedule:

i. the sum of _____UNITED STATES DOLLARS ($US) within thirty (30) days of the effective date of this Agreement, and

ii. the sum of _____UNITED STATES DOLLARS ($US) within one (1) year of the effective date of this Agreement, which sums once paid shall not be refundable for any reason whatsoever.

or

B) Downpayment/Running Royalty

a) LICENSEE shall pay to SMALLBIZ the sum of _____ UNITED STATES DOLLARS ($US _____) within thirty (30) days of the Effective Date of this Agreement which sum shall not be creditable against any royalties accruing as provided hereunder.

b) LICENSEE shall pay to SMALLBIZ royalties equal to _____ percent (%) of the net sales value of Licensed Product PROVIDED THAT the said royalties shall not be less than UNITED STATES DOLLARS ($US _____) per unit of Licensed Product used or sold.

c) The said royalties shall be due and payable within thirty (30) days of the end of each calendar half-year Product in respect of the preceding six (6) months.

4. TECHNICAL ASSISTANCE

a) SMALLBIZ shall provide the services of one (1) representative familiar with the TECHNOLOGY to assist LICENSEE in connection with the transfer of the technology for a period not exceeding thirty (30) consecutive days or such further period as shall be mutually agreed to in writing.

b) LICENSEE shall pay to SMALLBIZ promptly on receipt of invoice therefore _____ UNITED STATES DOLLARS ($US_____) per day for the services of the said representative together with traveling and living expenses to be computed from the time of leaving the usual place of employment until return thereto based on traveling on economy class airfare.

c) Except as otherwise agreed in writing, it is expressly understood that SMALLBIZ's representative shall serve in an advisory capacity only and LICENSEE hereby agrees to indemnify and to hold SMALLBIZ harmless from any claims from LICENSEE and/or any third parties which may arise out of the visit of SMALLBIZ's representative to the facilities of LICENSEE.

5. SECRECY

a) Except as provided in sub-Clause (b) hereof or as otherwise agreed in writing by SMALLBIZ, LICENSEE shall for a period of fifteen (15) years from the Effective Date of this Agreement, maintain secret and use its best endeavors to prevent the disclosure of Technical Information and Know-How relating to the TECHNOLOGY except on a confidential basis to such of its employees, duly authorized representatives, contractors and subcontractors as need such Technical Information and Know-How in order to properly perform duties assigned by LICENSEE to transfer the said TECHNOLOGY.

b) The obligations under subclause (a) hereof shall survive the expiration or termination of this Agreement but shall not apply to information which:

i. at the date of this Agreement is in the public domain or subsequently enters the public domain without fault of LICENSEE; or

ii. at the date of this Agreement LICENSEE can demonstrate to the reasonable satisfaction of SMALLBIZ was already within its own knowledge; or

iii. during the duration of the secrecy period LICENSEE received in good faith from a third party not under a secrecy obligation to SMALLBIZ and having a bona fide right to disclose such information.

6. STATEMENTS AND CURRENCY

a) At the time of each payment of royalties hereunder LICENSEE shall render to SMALLBIZ a statement in writing showing the computation of the royalties payable for the calendar half-year for which such payment is made. If no payment is due for any calendar half-year LICENSEE shall render to SMALLBIZ a written statement to that effect within thirty (30) days after the end of such calendar half-year. Payment of royalties shall be made in United States currency at the official rate of exchange published by _____ current on the date payment is made by LICENSEE.

b) All taxes and charges which may be imposed in the licensed territory on the amounts paid by LICENSEE to SMALLBIZ hereunder shall be borne and paid by

LICENSEE to the extent that such taxes or charges are not allowable as a credit against SMALLBIZ's taxes. If LICENSEE is required to withhold such taxes or charges from the amount paid to SMALLBIZ hereunder and to pay the taxes or charges for the account of SMALLBIZ, then LICENSEE shall promptly deliver to SMALLBIZ the original or true copies of the receipts covering each of such payments of said taxes or charges.

7. RECORDS

LICENSEE shall keep true books of account containing an accurate record of all data necessary for the determination of the royalties payable hereunder and shall permit SMALLBIZ at SMALLBIZ's request to examine such books of account by its duly authorized auditors to such extent as may be reasonably necessary to enable SMALLBIZ to determine the accuracy or inaccuracy of the statements in writing to be rendered by LICENSEE pursuant to Clause 3 hereof. SMALLBIZ agrees that its duly appointed auditors will not disclose details of such records to any other party.

8. NOTICES

Any notice, consent, approval, or other communication required or permitted to be given under this Agreement shall be by telex, fax, or cable, with confirming copy by air mail, to the address given above or to such other address as notified by either party. Notices shall be effective on the day they are dispatched by telex, fax, or cable.

9. PERIOD COVERED BY THIS AGREEMENT

a) This Agreement shall commence on the Effective Date of this Agreement and unless sooner terminated as provided hereunder shall continue for the duration of the Letters Patents referred to in the patent rights or ten (10) years from the Effective Date of the Agreement, whichever is the longer.

b) If the approval of this Agreement by the Governmental authorities of Japan is required by law and if such approval is not granted within six (6) months after the Effective Date of this Agreement, SMALLBIZ shall have the right to terminate this Agreement immediately upon notice, in writing, to LICENSEE.

10. TERMINATION FOR CAUSE

a) If either party hereto shall fail to perform or fulfill at the time and in the manner herein provided any obligation or condition required to be performed or fulfilled by such party hereunder and if such party shall fail to remedy such default within ninety (90) days after written notice thereof from the party not at fault, the party not at fault shall have the immediate right to terminate this Agreement and the licenses herein granted by notice in writing. Any termination of this Agreement pursuant to this Clause 10 shall be in addition to and shall not be exclusive of or prejudicial to any other rights or remedies which the party not at fault may have on account of the default of the other party.

b) LICENSEE's obligations for secrecy pursuant to Clause 5 hereof shall survive and continue in full force and effect not withstanding any termination of this Agreement for any cause whatsoever.

c) Any cause of action or claim by either party against the other party because of any breach or default by the other party shall survive termination pursuant to this Clause 13.

11. HEADINGS

Clause headings used in this Agreement are inserted for convenience of reference only and shall not affect the construction of the respective Clauses.

12. WAIVER

No waiver by either party of any breach of any of the terms or conditions herein provided to be performed by the other shall be construed as a waiver of any subsequent breach whether of the same or of any other terms or conditions hereof.

13. ARBITRATION

a) All questions and differences whatsoever which shall at any time hereafter arise between the parties hereto or their representatives or any of them touching or concerning this Agreement or the construction meaning operation or effect thereof or of any Clause herein contained or as to the rights, duties, or liabilities of the parties hereto respectively or their respective representatives or any of them under or by virtue of this Agreement or otherwise or touching the subject matter hereof or arising out of or in relation thereto shall be referred to arbitration in accordance with the Licensing Agreement Arbitration Rules of the American Arbitration Association.

b) Judgment upon any award entered through arbitration may be entered in any Court having jurisdiction thereof or application may be made to such Court for judicial acceptance of the award and an order of enforcement as the case may be. If the arbitration award or judgment rendered thereof be entered in a Court of competent jurisdiction for judicial acceptance or an order of enforcement, both parties waive all rights to object thereto insofar as permissible under applicable law.

c) Pending decision of the arbitrator, the parties to this Agreement shall diligently proceed pursuant to the provisions and terms hereof.

d) This Agreement shall be interpreted in accordance with the laws of the State of Missouri, United States of America.

14. IMPROVEMENTS

Subject to the prohibition of law, LICENSEE shall promptly disclose to SMALLBIZ full details of all inventions and improvements, patentable or unpatentable, relating to the TECHNOLOGY that are made, discovered, developed, invented, acquired, or owned or controlled by LICENSEE during the period covered by this Agreement and LICENSEE shall negotiate with SMALLBIZ in good faith for a nonexclusive license to use such invention or improvement and for SMALLBIZ to sublicense same upon terms and conditions to be mutually negotiated between the parties.

15. PATENT INFRINGEMENT

a) SMALLBIZ makes no patent infringement indemnification warranties other than as stated in this Clause 15 and the LICENSEE releases SMALLBIZ from all implied and statutory patent infringement warranties.

b) In the event any claim is made or suit is filed against LICENSEE for alleged patent infringement of any patent(s) of any third parties arising out of LICENSEE's use of the process or apparatus described in the Patent Rights, LICENSEE shall give written notice promptly to SMALLBIZ of the claim or service of the complaint in any such suit giving SMALLBIZ all information in the possession of LICENSEE relating to such claim or suit. SMALLBIZ shall have the first right to defend or settle any such suit, proceedings, or claim and LICENSEE shall give SMALLBIZ such authority, information, and assistance for the defense or settlement as SMALLBIZ may reasonably require. LICENSEE shall have the right to be represented by counsel at such proceedings at its own cost and to participate in, but not control, the defense of any suit.

c) If, during the term of this Agreement, LICENSEE is adjudged by a competent Court of Law to have infringed a patent or patents of any third party, and LICENSEE is required by the judgment of the said Court to pay patent royalties or damages or make an account of profits thereon arising out of its use of the apparatus or process described in the patent rights, SMALLBIZ shall indemnify LICENSEE in respect of the said judgment or any contract liability of LICENSEE with respect to said judgment, PROVIDED THAT SMALLBIZ's total liability to LICENSEE shall be limited to that liability prescribed in Clause 18 hereof accruing as prior to the date of a final decree of final judgment rendered by a Court of competent jurisdiction in a decision unappealed or unappealable from and against all damages and costs adjudged or decreed against and actually paid by LICENSEE in such suit or action.

16. INFRINGEMENT OF LETTERS PATENTS

LICENSEE shall give prompt notice in writing to SMALLBIZ of any infringement or threatened infringement of the Letters Patents referred to in the Patent Rights which may at any time come to the knowledge of LICENSEE.

17. INDEMNIFICATION AND GUARANTEE LIMITATIONS

The warranties and guarantees of Clause 17 hereof are in lieu of all other guarantees, warranties, obligations and liabilities expressed, implied, or statutory by SMALLBIZ. The cumulative liability of SMALLBIZ for all warranties and guarantees, whether expressed or implied, shall not exceed ninety percent (90%) of the royalties prescribed in Clause 3 hereof paid or payable to SMALLBIZ prior to the date of the LICENSEE's written notification to SMALLBIZ of its liability thereunder.

18. LIABILITY EXCLUSION

LICENSEE agrees that SMALLBIZ's entering into this Agreement is conditioned upon the express understanding that SMALLBIZ shall not at any time be liable, under any circumstance, for any indirect or consequential loss or damage to LICENSEE of any nature, including, but not limited to, liability or damage resulting from any breach of contract, loss of time in manufacturing the Licensed Product, or resulting from any delays or loss of time affecting other property or plans of the LICENSEE or for loss of profits, products, or production by LICENSEE.

19. FORCE MAJEUR

Neither party shall be liable for any failure to perform or for delay in performance hereunder which results from an act of God, war, fire, explosion, storm, strikes or other labor trouble, or any other circumstances beyond the reasonable control of the affected party. The party who is unable to perform or who is delayed in performance on account of the foregoing, shall promptly notify the other party in writing and shall exert its best efforts to recommence performance as soon as possible.

20. CONFLICTS OF LAW

If, at any time during the life of this Agreement, the Government of the United States, or any regulatory agency thereof (including any court), shall directly or indirectly disapprove of this Agreement or any provisions hereof, SMALLBIZ shall attempt to revise this Agreement in a mutually satisfactory manner and in a manner acceptable to such Government. In the event that a mutually satisfactory solution is not arrived at within ninety (90) days of the date both parties have actual notice of the problem, this Agreement shall terminate.

21. COMPLETE AGREEMENT

There are no other understandings between the parties hereto as to the subject matter of this Agreement other than as herein set forth. All previous communications between the parties hereto, which relate to the subject matter of this Agreement whether verbal or written, are hereby abrogated and withdrawn. This Agreement constitutes the whole Agreement between the parties hereto. No agent, or any employee of SMALLBIZ, except a duly authorized officer, has any authority to obligate SMALLBIZ by any terms, stipulations, or conditions not herein expressed.

IN WITNESS WHEREOF the parties hereto have set their hands and seals on the date first herein before mentioned.

SMALLBIZ, INC.	WANNABE, INC.
By: _____	By: _____
Title: _____	Title:_____
Date:_____	Date: _____

SAMPLE DISTRIBUTOR AGREEMENT

(Simplified Initial Discussion Version)

Date

Company Name
Address
City, State, Zip

Gentlemen:

SMALLBIZ, INC. is seeking a distributor to market and sell a certain proprietary coupling product which is marketed under the tradename FLEXICUP® and is the subject of U.S. Patent No. _____ and certain proprietary trade secrets.

BRIE, S.A. ("DISTRIBUTOR") markets and sells gears and transmission equipment primarily to the transportation and construction industries in France and Germany and represents that it has the capability to market and sell FLEXICUP in those markets.

SMALLBIZ wishes to appoint DISTRIBUTOR as its distributor for FLEXICUP couplings for a specific territory and DISTRIBUTOR is willing to accept such an appointment.

This Letter Agreement records our respective obligations for our mutual understanding:

APPOINTMENT

SMALLBIZ hereby grants DISTRIBUTOR the nonexclusive right to market, use, and sell the FLEXICUP Product Line ("the Product") for power transmission applications in the transportation and construction industries in the European Economic Community ("the Territory"), and DISTRIBUTOR accepts such appointment.

DISTRIBUTOR clearly understands that SMALLBIZ is actively looking for other regional and national distributors for the Product lines in additional markets.

SALES EFFORTS

DISTRIBUTOR agrees to use its best efforts to market and sell the Product in the Territory. In this regard, DISTRIBUTOR agrees to:

- Set up and maintain an office and staff to market, sell, and support the Product during the term of this Agreement. SMALLBIZ expects that DISTRIBUTOR will train its technical and sales representatives, who will in turn instruct DISTRIBUTOR's appointed resellers and customers, in the use and application of the Product.

- Advertise and promote the Product in the Territory and submit annual advertising plans and budgets for SMALLBIZ's review and comment no later than January 15th for each coming calendar year.

- Provide timely reports to SMALLBIZ for each calendar half year showing sales in the previous half year and estimated sales for the coming calendar half year.

- Report to SMALLBIZ the status of its sales and marketing activities at reasonable intervals, not less frequently than semi-annually;

- Maintain a minimum inventory of _____ thousand dollars ($US__,000) of Product to permit the prompt sale and shipment of Product to potential customers.

- Advise SMALLBIZ promptly of the appointment, or termination if previously appointed, of any dealers, subdistributors, or resellers to sell the Product together with the terms and conditions of their appointment.

- Keep true and complete books of account and make standard accounting entries relating to the sale of any of the Product sold under the Agreement. DISTRIBUTOR agrees to permit representatives of SMALLBIZ to inspect said books, as shall reasonably be required, during regular business hours.

In lieu of performance standards for the calendar year 19__, DISTRIBUTOR agrees that a minimum of _____ thousand dollars ($US__,000) will be spent for advertising and promotion of the Product.

SMALLBIZ agrees to provide, at no expense to DISTRIBUTOR, reasonable supplies of its current advertising literature to encourage and promote the marketing and sale of the Product to customers.

Upon reasonable notice, SMALLBIZ also agrees to make available its facilities and staff to assist in customer sales presentations and demonstrations. Each party shall bear their own respective costs for these activities.

PRODUCT PURCHASE

SMALLBIZ agrees to sell to DISTRIBUTOR the various forms of Product it manufactures, or has manufactured under subcontract, at a selling price which is discounted by _____percent (__%) from its published list price for the said forms, a current copy of which is hereto appended.

Product may be ordered by DISTRIBUTOR either by a written purchase order or by a telefax order followed by written confirmation to SMALLBIZ. Upon receipt of order, SMALLBIZ shall promptly ship Product to DISTRIBUTOR to be delivered in accordance with instructions accompanying the order.

Unless otherwise agreed to in writing by SMALLBIZ, the terms of payment for orders received from DISTRIBUTOR shall be net thirty (30) days after date of invoice, payable in United States currency. Product sold to DISTRIBUTOR is sold on an FOB Kansas City basis.

PRODUCT SUPPLY

DISTRIBUTOR understands that delivery of the Product sold to DISTRIBUTOR will be influenced by the prevailing production schedule of SMALLBIZ and/or its suppliers, and the availability of component materials at the time an order is received. SMALLBIZ will, of course, make every effort to expedite orders placed by DISTRIBUTOR and will promptly advise any significant changes in the production schedule.

CUSTOMER PRICING

DISTRIBUTOR shall set its own resale prices for the various forms of the Product it sells to its customers and shall promptly provide SMALLBIZ with a copy of any published price lists and any revisions thereto.

DISTRIBUTOR shall invoice its customers and resellers direct and shall assume all costs and expenses associated with billing and collection of its accounts.

PRODUCT QUALITY

SMALLBIZ manufactures Product to meet defined design specifications and test representative units of manufactured Product in accord with written quality assurance test program.

SMALLBIZ assumes all responsibility for the quality and performance of the Product manufactured by, or under subcontract for, SMALLBIZ shall assume all expenses related to the exchange or the return of substandard or defective merchandise which does not meet manufacturing specification. Neither party will be compensated for substandard or defective merchandise returned for credit to SMALLBIZ.

SMALLBIZ shall not be responsible for, and DISTRIBUTOR agrees to indemnify and to hold harmless SMALLBIZ from, any and all representations which may be made by DISTRIBUTOR, its staff, or resellers as to the suitability of the Product for particular applications.

TRADEMARK

DISTRIBUTOR agrees that all Product and advertising and promotion of the Product shall prominently display the trademark "FLEXICUP."

All proposed uses of the said trademark shall require SMALLBIZ's written consent prior to such use, which consent shall not be unreasonably withheld.

SMALLBIZ agrees that DISTRIBUTOR may repackage the Product to sell under its own label provided that said repackaging and/or labeling shall prominently display the said trademark and the following notice:

Manufactured by SMALLBIZ, Inc. and repackaged
by BRIE, S.A, Inc., distributor.

TECHNICAL ASSISTANCE

SMALLBIZ agrees to provide technical assistance to DISTRIBUTOR, its resellers, and customers, as required, upon reasonable notice by DISTRIBUTOR. DISTRIBUTOR agrees to promptly reimburse SMALLBIZ, upon presentation of invoice, for such assistance which shall be charged to DISTRIBUTOR at SMALLBIZ's prevailing per diem allowance rate plus reasonable travel and living expenses.

For their mutual benefit, the parties shall regularly exchange information on new applications and methods for applying the technology and further, hold an annual meeting to ensure such exchange of information.

COMPETITIVE PRODUCT

During the term of our Agreement, DISTRIBUTOR agrees not to engage in the promotion, sale, distribution, or manufacture of any competitive product in the Territory.

PATENTS

SMALLBIZ makes no warranty, express or implied, regarding the patentability or validity of the Patent Rights and no representations whatsoever with regard to the scope of the Patent Rights or that the Patent Rights may be exploited without infringing any other patents.

DISTRIBUTOR agrees to advise SMALLBIZ of any product either contemplated or on the market which is similar to the Product or which might infringe any applicable patents relating to the Product. SMALLBIZ will be free to decide whether or not to commence legal proceedings, at its own expense, as it shall deem necessary. DISTRIBUTOR agrees to provide reasonable assistance to SMALLBIZ in such proceedings at SMALLBIZ's expense.

CONFIDENTIALITY

Except as provided hereunder or as otherwise agreed in writing by SMALLBIZ, DISTRIBUTOR shall for a period of ten (10) years from the effective date of this Agreement, keep confidential any technical or commercial information relating to the Product or the business of SMALLBIZ, the disclosure of which would be prejudicial to the interests of SMALLBIZ.

The obligations of secrecy herein shall not apply to information which at the effective date of this Agreement is in the public domain or subsequently enters the public domain without fault of DISTRIBUTOR.

DISTRIBUTOR shall take all reasonable steps through confidentiality agreements and other legally enforceable measures to prevent any such unauthorized use and/or disclosure. DISTRIBUTOR further agrees that such confidentiality obligations shall survive termination or expiration of this Agreement.

AGENCY

Neither party shall represent itself as an agent of the other or as authorized to assume or create obligations of any kind whether expressed or implied. The parties agree that their relationship is that of an independent contractor, and not as employer and employee.

DISPUTES

SMALLBIZ and DISTRIBUTOR have agreed that a spirit of cooperation, confidence, and respect are of utmost importance in carrying on a mutually satisfactory relationship.

When disputes do arise as a result of misunderstandings or breach of duties, every effort will be made to arrange fair, practical, and speedy resolution of the respective differences.

In the event that such differences cannot be settled amicably, we agree that such differences will be submitted for arbitration in accordance with the rules and procedures established by the American Arbitration Association. It is further agreed that the

decision of the arbitrator will be binding upon the parties and will be enforceable at law in any court having competent jurisdiction thereof.

The laws of the State of Missouri, United States of America, shall apply on all differences and questions that arise concerning the terms of this Agreement, regardless of the jurisdiction in which any legal proceedings may have been initiated or continued.

PERIOD OF AGREEMENT

This Agreement shall commence on the effective date as written hereon and shall be for an initial period of three (3) years from the date hereof. Thereafter, the Agreement will automatically renew from year to year unless terminated by either party by six (6) months advance written notice to the other party.

Commencing with the calendar year ____, and with each succeeding year thereafter for the period of this Agreement, SMALLBIZ may, at its option, terminate the Agreement if Product purchased from SMALLBIZ does not meet or exceed the following performance standards:

Performance Standards

Year	Sales Performance Standard
1998	$US _____
1999	$US _____
2000_	$US _____
Thereafter	$US ___ for each year.

At the conclusion of the first year of the Agreement, the parties shall review the Agreement and offer to negotiate in good faith any changes to the Agreement that may be appropriate thereto following DISTRIBUTOR's first year of operation.

TERMINATION

Either party may terminate this Agreement if the other party becomes involved in bankruptcy, reorganization, receivership, or any insolvency proceedings.

SMALLBIZ, may at its option, also terminate the Agreement immediately if payment for any order is not received within thirty (30) days of the due date of such order. Immediately upon termination of this Agreement, DISTRIBUTOR shall:

- Cease to represent itself as a SMALLBIZ distributor and cease to take orders for the Product.

- Promptly pay and settle all outstanding accounts with SMALLBIZ for purchase of Product.

- Advise the names of customers with unfilled orders and cooperate with SMALLBIZ to permit SMALLBIZ or its designated representative to fill or cancel such orders.

- Grant SMALLBIZ the option to repurchase any current inventory of Product and if SMALLBIZ exercises such option, transfer all such inventory to SMALLBIZ with clear title free of any liens, charges, or encumbrances.

ASSIGNMENT

Without the prior written approval of SMALLBIZ, DISTRIBUTOR may not assign its rights and obligations, in part or whole, under this Agreement to a third party.

LEGAL

The terms of this Agreement shall supersede and cancel any and all previous understandings, contracts, and Agreements, oral or written, that were in effect between the parties.

If either party fails to perform any of its obligations under this Agreement, and does not remedy such failure within sixty (60) days after receipt of written notice from the aggrieved party, then the aggrieved party shall have the right to immediately terminate this Agreement.

The failure of either party to enforce any condition or part of this Agreement at any time shall not be construed as a waiver of that condition, nor shall they forfeit rights to future enforcement during the term of this Agreement.

All written notices in compliance with any of the requirements or terms of this Agreement shall be sent by registered mail to the last known address.

Kindly indicate your Agreement with an acceptance of our Distribution Agreement by signing the enclosed duplicate copy of this Letter Agreement and returning same to us.

Yours faithfully, Agreed to and accepted:

SMALLBIZ, INC.

Attachment: Current Price List

ACKNOWLEDGMENTS

Along my road, I have received help and advice from so many people that I begin by asking forgiveness from the many international friends and colleagues, which space doesn't allow me to thank and recognize here.

I do want to generously thank the following.

My mentors: Dudley Smith (Oregon) and Jim Sauvage (Union Carbide), who introduced me to the law and business of licensing and stimulated my business career. Special thanks to Dudley, for providing much of the early material on licensing that served as my "text book"; to my friends and colleagues of the Licensing Executives Society who have warmly shared, swapped, and provided much of the fodder for this book; to Jack Brodie, my first boss at Union Carbide Australia who taught me 5 minutes with a pencil and paper could save 6 months of work; to Meryvn Norrie (Union Carbide), another Aussie boss who believed we could indeed sell Australian technology to the world and, more importantly, that I could make the transformation from engineer to businessman; and to Sato-san (Hydogaya Chemicals), Takahaski-san (Nippon Steel), and Nakamaru-san (Tsukishima Kikai) who all played a part in gently introducing me to the practices and patience of Asian culture.

My heroes: To the many small business owners including Gail and Alan Hering (API, Michigan), Jack Pierson (Preco Industries, Kansas), Fred Keller (Cascade Engineering, Michigan), Mike Keenan (Heatron, Kansas) and Pamela Lloyd (Pamela Lloyd Publishing Services, Sydney, Australia) who put it on the line every day as they doggedly pursue their dreams.

My critics: Kay Johnson (Gage & Tucker, Kansas City) for her particular contributions to the sample agreements in the appendix and many others who generously shared their professional business, marketing, financial, legal, and management insight in teaching me to think out of the box over the years.

My editors: Beverly Brady, Tracy Warren, and my partner, Pamela Lloyd, without whose guidance, patience, encouragement, and perseverance this book would not be in the form you read it today.

And last, Fluor Daniel for its generous support in providing the initial resources to make this book become a reality.

ABOUT THE AUTHOR

Robert Muir is a former Vice President of Fluor Daniel Inc. Fluor Daniel ($US9 billion) is a leading global, diversified services company serving five principal market sectors: industrial, process, hydrocarbon, government, and power.

Rob was responsible for creating the *Prometheus Alliance*, a corporate venturing partnership made up of six Fortune 500s (Monsanto, Litton, Hughes Aircraft, Edison International, Texas Utilities and Fluor Daniel).

Before joining Fluor Daniel, Rob ran his own consulting company, Muir & Associates, which provided strategic marketing, business development, and competitive intelligence services to venture capitalists and private investors, manufacturing companies and emerging technology-based businesses. He also founded and served as the executive director of the Kansas City Manufacturing Network, a forum of more than 80 regional manufacturing companies

Rob's career also includes serving as president of MRI Ventures, the commercial subsidiary of Midwest Research Institute; and president/CEO of the Research & Technology Institute of West Michigan. He also created an Australian international licensing program for Union Carbide which resulted in 7 licensing agreements and 3 representative agreements in Japan, Europe, and US and recovered a $2 million R&D investment. Rob formed two major industry R&D consortia including one based on technology developed at the US Department of Energy's National Renewable Energy Laboratory and a CIM injection molding plastics industry consortium in Michigan. He also has successfully operated two VC-funded start-up companies: Ceramic Research Inc. which was sold to E.I. DuPont at a 20 times multiple, and EnzyTec, Inc., a biodetector manufacturer sold to a larger industry partner as part of a turnaround.

Currently, he is one of the founding partners of a trans-Pacific venture capital fund, the Prometheus Fund, which matches Australian technology with Fortune 500 strategic markets.

He is a regular speaker on technology commercialization and previous author of biweekly columns for several publications including "Technology Matters" for the *Grand Rapids Business Journal* and "Small Business" for the *Kansas City Business Journal* and the *National Business Bulletin* (Australia).

Born and raised in Australia, Rob is a chemical engineer with degrees from the University of New South Wales, Sydney. He was a founding member, international delegate, and past officer of the Licensing Executives Society-Australia.

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