

Technology Acquisition Process

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Businessman's overview of key steps for successful technology acquisition

This paper is intended as an overview of the technology acquisition process from the point of view of the businessman. We thought the best way to achieve this was to try to distill this process into its elementary components. Before doing so, let us stress the time element involved.

Technology acquisition is a lengthy process. Excluding the actual time involved in using or selling the technology itself, i.e., marketing by the licensee, at least one full year is needed for the initial phases and sometimes as much as three to four years. The whole process from start to finish (including the licensee's marketing phase) can take 18 years or more.

There are excellent books, manuals, courses and articles to help a person gain some background on the subject. Even then, technology acquisition will still be a formidable challenge and one has had some practical experience. It's like learning how to swim from a videotape. You first dive into the swimming pool brings with it a good chance of drowning. Similarly, when putting technology acquisition transactions together, there is still a lot to learn after you have read the manuals and looked at videotapes.

There is more than one way to do the technology acquisition process. We¹ identified the following major chronological phases:

1. Negotiation of the license
2. Financing the deal
3. Transfer of technology
4. Implementation
5. Termination of the license

IDENTIFICATION OF NEED

The first and most important step is to recognize the need to acquire a specific technology. It seems simple and obvious, but it is not. Without careful study, failure will set in from the start. It is here that the stage is set for future success.

Justification for the search for a new technology can be made by looking at the needs, growth plans and future prospects of a company. An evaluation of how the company provides products and services for its customers might be one way to look at possible needs for improvements. New technology, whether developed from an inside or an outside source, can provide a number of opportunities:

1. Unique product properties giving a sustainable competitive advantage (one which patented, but not necessarily a real if significant trade secret/know-how and start-up/lead-time over the competition are possible).
2. New products as true extensions or extensions of a line into a better competitive position.
3. New direction in the company's business by diversifying the product or service categories.
4. Improved and more efficient processing of existing products that cut down cost of manufacture.

How Should You Approach the Problem?

Different companies will approach the problem differently. No one way is better. The most important consideration is to stick to the culture of the organization. It is

unwise to try to force automatic ideas in a company operating by consensus (like most Japanese companies) or vice versa (like a number of German companies). Results, if you get any, will not last and are probably flawed. In the first case, expect general resistance if you pass the first hurdle. In the latter, inertia or a similar activity will set in until the manager makes a decision.

It is important to feel out how decisions are really made, not what people or management want you to believe. Go beyond what can be wished thinking of information for stockholders, new employees, or financial analysts.

Next, consider who performs what functions at which level in the organization. Find out early about "red" and "orange" areas. Do you need to go on a hard-hatting mission first? Will the R&D department torpedo your prospective venture, particularly if the idea comes from Business Development or Marketing? It certainly pays to make sure you have the right definition of your needs from the start. Sometimes, the best way to neutralize such a threat is through an organizational change. If R&D is reactionary, but business development proactive, have your function become part of R&D. Use the Trojan horse tactic. Being part of the most relevant party will allow you to neutralize it more easily as long as you keep the support of the other parties and your sanity.

Consider the following items from the outset:

- Strategic plan
- NIH syndrome (not invented here)
- Opportunities and needs in

The Basic Steps

1. Identification of need
2. Financing of technology
3. Assessment of technology

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the market

— Capabilities of your organization to develop and to market the technology if successful.

— Credibility, real or perceived.

— Management approval systems.

— Depth and permanence of the organization's commitment.

— Budget availability (to look and to pay).

Let us consider some of these items in greater detail. First and foremost, does the technology you want to acquire fit with the "Strategic Plan"?

This is important to matter whether the company has a formal plan or an unspoken plan. If you are part of a fairly large and structured organization, the strategic need will be one of the first criteria for consideration or acceptance. If you have a "fluid" organization, the strategic plan may relate more to the culture or degree of control. A technology that does not fit with the strategic plan will probably result either in the failure of your efforts to evaluate a transaction, or, at a later date, in the premature termination (voluntary or not) of a contract due to your company's reticence into an unfamiliar area of business and subsequent poor performance. Watch also for changes in strategic direction. For instance, a project that looked good in the chemical industry of the early 1980s could have become a burden in the mid 1980s.

Next, check for NIH Syndrome within your organization. Is your R&D organization likely to view this "newcomer" or is it going to try to sabotage it each step of the way. History may help you determine this.

Most organizations will not admit to an NIH problem so do not necessarily believe what you are being told. Listening to trusted colleagues in the trade can help. An analysis of how many leads were followed versus how many were rejected and the type of reasons for rejecting can provide some clues.

Do not confuse NIH with inability to make a sound scientific judgment. The latter is fairly common if you are getting outside of the area of expertise of the organization.

One of the most important tasks is the evaluation of market needs or more precisely, future market needs. For example, in the 1970s Detroit did not see a need to fund or develop the technology to build compact cars. A closer look at the market in California and on the East Coast could have given clues to the future. Car makers were blinded by their microscopic analysis of the market. They could not conceive that the market was trending toward fragmentation into a number of individual "niche" and that different people would buy different things, give the opportunity.

Next, check the capability of your organization not only to develop but also to market a new technology. Can the Cadillac division of General Motors develop and market a 2CV Citroen or a Honda? Is General Mills the right company to develop and market a new night sweater technology?

Study your management approval system. How strongly does your organization approve of the project? How consistent is the decision likely to be? Will the departure of one person make the difference? If so, leave and stay close. If this person is promoted, demoted or changes jobs, you may have to start all over again or, worse, tell your prospective licensee more efforts and months later that although he agreed to all your terms, you are not interested anymore. If you find what you believe to be the answer to your prayers, how likely will the licensee want to deal with your organization? If your story is credible? What are your chances with potential competitors, worldwide?

Finally, do you have a budget sufficient to look for a new technology and to pay for it if you find what you want? Establish early your budget needs for a search and what a realistic cost price for the acquisition would be. Estimate the likely time you need to succeed and double it. Look more for consistency than for glimmer. Nothing is more for your reputation and your success rate in achieving the company's goals than finite management. Persistence, patience, and caution mixed with a good dose of enthusiasm and imagination are

keys to a successful technology buying operation.

SOURCING

The search for new technology can vary from an active to a passive approach. Because of their reputation, large companies are the recipient of a great number of unsolicited ideas sent in by free-lance inventors, agents, brokers, scientists, small companies and even other large companies. Companies have to be prepared to handle such requests. Unfortunately, many times the best way to be here a policy that rejects most if not all unsolicited ideas. This general policy is usually instituted as a self-defense mechanism against possible claims by independent inventors or inventor's friends. It is justified by the previous generosity of the courts for the private individual, particularly in certain states, coupled with dismal statistical success from such ideas. However, it does raise serious ideas regarding new technology, one has to consider all new ideas. With a search list in hand, the search can be made in many ways. Consultants can help if they actually understand what the company needs are. The use of brokers is risky as they get paid if they sell and therefore can be more biased toward their own ideas.

The Licensing Executive Society provides an excellent forum for learning the technology acquisition process and the opportunity to meet with others who have the same objectives. Other organizations that specialize in technology transfer conduct meetings similar to those of trade fairs or conferences. They include Technology Analysts Inc., TR-104 (E. Dorothea) from under Brandt Management, the IT Tools Trade Fair, Chemospec and Technology Transfer Conferences, Inc. These meetings provide an opportunity for the seller to present their technology and for the buyers to shop for the best fit. Technology sources include the following:

1. ILES Organization, meetings and literature
2. Trade Journals
3. U.S. Patents, Foreign Patents
4. Consultants and Brokers

5. Online searching Data bases
6. Technical Conventions
7. Trade Fairs and Meetings
8. University Data Links, Computer networks
9. Investor Agents
10. Retired Scientists and Engineers
11. Unpublished Sources
12. Competitive or peer companies
13. Experts within your own organization

A serious review of the literature is essential to keep up with the latest trends in the industry and the activity of peer companies. A discriminating type of search is important for finding the most up-to-date trends. (For instance, the foreign patent abstracts by Derwent.) This can provide an insight as to the activity and thinking of companies before their products materialize on the market.

A competitor of Radix knew within a few millimeters the size of the "disk" for the new disk camera before that camera became commercially available. He obtained the information from foreign patent publications. US patents too can be of value in that they detail the technology and identify a possible location.

University contacts are important especially those that are studying science relating to your business. Most universities are actively looking for opportunities to transfer their discoveries while sometimes can be at the "break through" land. Utah State University, for instance, is working on a computer-linking system in which sensory technology is simulated and industry needs are tagged. Thus, matches could be quickly made. Novac has a similar system for NASA-sponsored research, and it included commercial research as well. Computer data services such as Dialog and Lexis/Novac are also a valuable resource for searching for technology developments. They provide for specific company and subject related inquiries.

From Plans to Action: New Technology?

The searching process should identify the sources of new tech-

nology. A list would include: universities with their basic research that could provide the development of important pieces of technology that could be used to build the commercial "break-through" product. Usually university technology needs further development to fit the commercial process.

Small companies such as biotechnology firms are sometimes developing the basic elements of technology with the new tools of high technology. These firms can, through joint research, help develop new commercial products. Other small and emerging companies are doing the same with more conventional equipment, and they too can be receptive to joint research or development contracts.

Independent inventors also can contribute in providing the appropriate parts of a needed development. But these are often hard to find unless they have patents already issued.

Manufacturers and supply companies often are good sources for new ingredients or equipment that provide new functionality to accompany a process or product. They need the user company to help prove the commercial worth of the development. Here again, joint research agreements are possible.

Good competitive or peer companies can be a source of technology. They may no longer need the technology as the result of a restructuring of their product lines. Or they may not wish to apply all the possible uses of the new development and/or are not willing to market in certain foreign countries, and therefore, are willing to share the development with others through licensing. Or their marketing channels may only penetrate a portion of the total possibilities for a product or service. They can also wish to have a competitor to help establish a new technology in the market. Sometimes the request they come through their major customers who wish or demand a second source of supply.

Government laboratories and agencies recently stepped up their efforts to commercialize government-sponsored research. For further information on this subject

refer to *Jan Novak*, June 1987, Page 82 "Opportunities of Finding Technology." Technology sources include the following:

1. Universities
2. Small or Emerging Companies
3. Independent Inventors
4. Independent Laboratories
5. Manufacturers
 - a. Competitive Companies
 - b. Noncompetitive Companies
 - c. Suppliers
 - d. Related Manufacturers
 - e. Unrelated Manufacturers
6. Governmental Institutions

ASSESSMENT

Here are six key points to keep in mind:

1. You need a position adapted to the needs of your organization.
2. Does the technology to be acquired support a specific need in your strategic plan?
3. Is your assessment team completed?
4. Assessing your commercialization skills is just as important as assessing your technical capabilities.
5. Think globally.
6. "Know-how" belongs to those who "know how."

Assuming you will be involved in this type of technology assessment and acquisition transaction on an ongoing basis, you need a system, a procedure tailored to your company's specific needs and consistently copying someone else's system probably won't work. You probably can start with some basics, and then develop and adapt it further.

If you do not have a system, several books and articles are available to help you. An interesting book published recently is "Winning at New Products" by Robert G. Cooper. Published by Holt, Rinehart and Winston of Canada, Limited, Professional Division, 55 Bloor Avenue, Toronto, Canada, M8Z 4A6. It has a covering model in Appendix "A."

A good system is the use of peer reviews to evaluate an organization by as possible a number of peers and come up with an overall "Probability of Success" in replicating a particular technology. Next, prepare a

Fig. forecast for the products that will result and estimate the future cash flows from such a business. Using a procedure called discounted cash flow analysis, those future cash flows are used to calculate an investment index, which gives you an idea of the likely return you will make on the investment in the technology and in the commercialization of that technology. In general, the probability of success and investment index correlate well with future business results.

The areas to evaluate, which include a number of key non-technical areas, are as follows:

Technical

- Technology strength (relatedness, innovation, competitiveness)
- Personnel (numbers, skills)
- Manufacturing implementation (feasibility, cost)
- Time to complete the transaction
- Remaining investment

Marketing

- Financial incentives (potential sales, profits)
- Competitive factors (marketing channels, product value)

Overall

- Risk
- Strategic fit
- Major assumptions

This procedure works well on both technology assessment and new product assessment.

An important point that bears repeating is the concept of relatedness. If the technology you are acquiring is not related to something you are already doing, you are fighting heavy odds. Table I shows a typical trade record from a major specialty chemical company with its own technology and product developments.

The technology you are considering acquiring must support your strategic plan. If it does not, you are off target or your plan itself is inadequate and should be updated. Make sure it fits. The technology must address a definable strategic need. Be certain that you must go outside your company rather than develop the technology yourself. Following are some strategic needs that are obvious and some that are not so obvious.

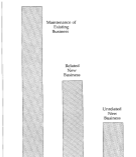


Table I

Strategic Need For The Technology

1. Must support strategic plan
2. Must address a strategic need:
 - New business opportunity
 - Provide better access to demand market
 - Provide improved manufacturing capability
 - Provide a desired product line
 - Reduce a current or potential weakness
 - Pre-empt a competitor
3. Don't go outside if you can really do it better yourself
4. Follow a three-step preparation:
 - Is the technology need best satisfied by acquisition
 - Identify all the candidate companies
 - Identify reasons why the other companies would be interested in a proposal

5. Consider the "dammit" effects that could happen if:
 - A deal is put together
 - A deal is not put together

Sometimes strategic plans are sophisticated and complex, sometimes they are very simple, but you can always handle the technology acquisition situation if you keep three steps in mind. First, is your investment team competent? This is no trivial matter. The reason you are making the acquisition in the first place is that you don't have the technology you are seeking. If you don't have it, the chances are you don't have the expertise to assess it properly, either. Be certain you have the assessment ability. If you are uncertain, then you probably need to bring in an expert consultant. Consider what you are going to do with the technology? It is just as impor-

tant to have good marketing or communications input as it is to have technical input. A big share of the responsibility for failure can be attributed to marketing reasons.

You must also think globally. Even the biggest companies are making global impact transactions (M&A). The world marketplace is changing so rapidly that a domestic assessment only will leave you extremely vulnerable. This is true not only as you think of opportunities for your new technology but for competitive assessment as well.

Finally, consider that the know-how belongs to those who know how. How easy will it be to transfer effectively the acquired know-how into your company. Think back to the videocassette analogy. All the know-how was in the videocassette for swimming, but you need experience in the pool.

As this is the most likely phase where documents, samples and technology will start to be transmitted from company to company, special care must be exercised to check the legality of your process in view of the Export Control Act. Make sure you check with your attorney, well ahead of time, before actually exchanging technology, even on a limited basis, even technology that looks innocuous, with a foreign company. In fact, the U.S. Government has been the most restrictive, but things do change. Also the fact that it was clear a month ago does not mean it is still acceptable today. Our businessmen are active and they keep changing their "friendship."

NEGOTIATIONS

Let us make the assumption that there is some complexity to the transaction and that you are not simply out shopping for widgets, size 8, \$15,000, take it or leave it. You've done your homework and you think you're ready to go off and bring in a new technology. Following is a reference checklist.

PREPARATION

- What are the global implications?
- Will the transaction contribute

to "sustainable competitive advantage" and support the strategic plan?

- Will the transaction adversely impact any other transactions?
- Finalize your transactions.
- Does the scope of the transaction go beyond your business unit?
- Identify the key stakeholders in your company and get them involved early.
- Consider antitrust and other legal implications on a worldwide basis.
- For negotiations with companies from other countries, get some training on that country's culture, business practices, and negotiating preferences.
- If possible, have a senior mentor for your deal and introduce that person to the other side.
- Analyze the other company thoroughly. Do your homework first.

UNDER WAY

- Transaction must be good for both companies
- Do your negotiations like pooling an onion — one layer at a time
- Protect yourself at the appropriate time with a standby agreement
- Identify key stakeholders in other company
- At every stage of the negotiations, keep the doors open
- Maintain an atmosphere of confidentiality
- Make the concept of the transaction simple and understandable
- Manage carefully the participation of attorneys and other supporting staff
- The concepts of:

- "Revealing Business Atmosphere"
- "Personal Relationships"
- "Trust"

are as important as the transaction itself and will provide a lasting relationship of great value. Many transactions will have a scope beyond that of your business unit, and you must get the other business units involved early or there will surely be serious complications later. The same concept applies to those executives in your company with a lot at stake in your transaction. Get them involved early and get them

committed.

You can not deal effectively with people from other countries without learning something about them ahead of time. This can be a fascinating, rewarding process and a highlight of your lifetime. The interest that you show in the other company's culture and language will greatly enhance and facilitate your negotiations.

Many times it has been helpful to attribute certain virtues or policies to a senior mentor and make it known to the other company that the transaction will have to leave his blessing. A variation of this can also be the good guy-bad guy concept which can be particularly helpful if the other party is also an important customer.

There's a lot of work before you begin your negotiation meetings. In some cases, this can last the better part of a year. Keep in mind at all times during the negotiations that the transactions should be good for both parties. This point is one of the toughest to accomplish but it's the most important one, too. It establishes you as a good company in the business world. The "tough negotiator" that suppresses the last drop out of a "bargain" may feel great and having served his company well but in reality it is the opposite. He has initiated the death knell of the transaction. Success in later the license will walk up and other will request a renegotiation, cancel the agreement or, if forced to, will only perform at a minimum level.

In complex transactions taking things one level at a time, or one concept at a time makes life a lot easier and usually accomplishes more and in a shorter time.

Confidentiality agreements are important and should have a time limit. Don't be inflexible but realistic. Limit them in what is really needed, both ways.

Be sure you know the identity of the senior members or stockholders on the other side, and what the key issues are from their point of view.

Don't say "no" right away. The Japanese see matters at this point. They rarely tell you "no," but instead say that something you ask about will be "very difficult," and the door is kept open.

In sensitive cases, you may wish to make the very existence of your discussions confidential; this helps prevent premature leaks to the press or others. If you get their approval, you have learned a valuable lesson in advance about the other side. Run and cut your losses. A simple concept makes a good focal point. Keep your concepts clear and understandable.

You need attorneys from the start, but sometimes you must let business people get the deal concepts together while being coached from the sidelines. Many companies involve attorneys, financial people and other support staff heavily. Usually at the onset of a business transaction it is best to have their role not so visible to the other company. Certainly bring them in before a final deal is consummated or you may not recognize your agreement when it is completed.

The atmosphere, relationships and feelings of trust that you are able to develop during the negotiations are vitally important. They set the stage for a lasting relationship that is mutually beneficial, and the rewards that this will create for both sides have an enormous value-added. Make sure your lawyer understands the reasons for your acceptance or rejection of key elements. They could be technical or purely of internal political nature.

TECHNOLOGY TRANSFER

The actual transfer of technology is a complicated procedure involving many important steps.

A few key steps are included below. Let us highlight some key elements.

Besides a proper legal contract or agreement, the elements of a good workable transfer should include:

- Patent rights — to that exclusive position to provide for the competitive advantage.
- Know-how that should include the specifications, formulas and quality control standards and methods used.

- Product know-how including process and application know-how.
- Drawings, blueprints and flow diagrams when appropriate.

- Plant layouts, turn-key contractor suggestions.

- Technical assistance, which could come from company research or production personnel. Also, consultants and retired employees could be used to provide help in training the licensee. Telephone conferences with an often solve little problems quickly.
- Personnel training and the assistance in the hiring of key employees can help provide for an efficient technology transfer, if elaborate processes are involved. Visits to the licensor's plant also give an insight as to how things should run.

- Trademarks, standards, guidelines and formal process manuals.
- And in certain cases, sales and marketing assistance are of value especially in foreign transfers.
- Health and environmental data including but not limited to Pyromanufacturing, purification (PMP), Government of Manufacturing (GOM) technology data, biodegradability, late in the revision, insect, health exposure, industrial hygiene and all other relevant product stewardship information.

Technology Transfer Checklist (What Should Be Expected)

1. Patent rights
2. Know-how, specifications, formulas, standards
3. Drawings, blueprints
4. Plant layout, turn-key
5. Quality control methods
6. Technical assistance
 - a. Company technical or production personnel
 - b. Consultants
 - c. Retired employees
 - d. Telephone assistance
 - e. Locating and hiring key employees
7. Training
8. Trademarks, standards, guidelines
9. Sales and marketing assistance (S, PMP, CRM, safety and security)

FINANCIAL OPTIONS

This subject may not be critical for large corporations, but could be a deal breaker for medium to small companies. Let us briefly look at

which options to consider for a new technology first and a well established one later on.

Besides the classical option of going to the bank, several other means are open as a source of funds.

Financial Option — Power Technology

Government Funded R&D Contract

The SBR program is an excellent example and has been amply discussed elsewhere. Other sources of funds are also available through a series of major governmental and semi-governmental agencies.

Private Sector R&D Funding

Several organizations will let you borrow money against future earnings or for a minority equity participation including the Investor Fund.

R&D Joint Venture with Option to License

This allows you to share the risk equally between licensor and licensee. The potential reward comes at the end when the product is developed and ready to go to market. The final split will be commensurate with each partner's total investment.

R&D Joint Venture with Option to Purchase

A variation of the previous one where payment is in the form of a one time cash payment.

Minority Investment

This could be the best alternative for very specialized financing such as instruments where the total business of a company could be made on one specific technology. It is usually best done without management interference from the licensor and should retain a minority participation without management contact.

Minority Investment in Venture Capital Firm

Can be used as an entry in the structure of that company for future growth needs.

Financing Option — Developed Technology

Financial options for a developed technology are more straightforward as the assets required are generally more secure. The extent of the financing rights will vary ac-

depending on the type of technology acquisition, e.g. distribution rights only, simple patent license, intellectual property rights license including technical assistance, etc. Besides the usual licensing routes, you should consider the following options which have been covered widely in the literature.

- Joint venture
 - Minority investment
 - Merge - stock/ debt conversion
- 608
- Company acquisition
 - Venture with a major potential customer

IMPLEMENTATION

Now that the deal has been negotiated, the technology transferred and the proper financing obtained, the agreement will go to its implementation phase. This phase will include the whole commercialization of the product or service. We will only address the specific issues involving both licensee and licensor.

The licensor's involvement drops significantly, sometimes totally and the licensee picks up the stick. At this point, it is important that the licensee consider the technology as its own with the usual checks and balances. It pays for the license to keep an initial involvement at the onset to make sure the project is on track.

A good, stable relationship between licensee and licensor is essential to resolve the possible conflicts that can come up during the life of the contract such as infringements by third parties, liability suits, invalidation of patents, etc.

This is a phase that is typically neglected by busy licensing officials. On the other hand, we know of several companies that make it a point to periodically check upon their licensees in good and bad times. The pharmaceutical industry, for instance, has had a very good record in this field as it allows maximum results for a minimum amount of resources.

Pharmaceutical companies often pull together with their licensees in aspects as diverse as raw material supplies, dealing with the various regulatory authorities, monitoring

of side effects of drugs, commercial and scientific promotion. Part is due by the necessity of the regulatory process, part is voluntary. This is not as common in other industries such as chemical, pharmaceutical, energy etc. A continuous contact between the licensee and licensor will detect problems or potential problems early. Risk benefits of the continuous and harmonious relationship between the licensee and licensor are the possibility for both parties to extend the life of the agreement through continuous voluntary improvements brought by the licensee or licensor, the grant back and grant forward. There is a strong possibility of this happening even when not required contractually if the relationship has been smooth during the implementation phase.

These considerations are usually easier to negotiate and to implement than a fresh start. It is also a good idea to periodically conduct audits of payments due particularly if a company has numerous licensees. A thorough check of royalty payments, including minimum payments, confidentiality limits, etc. that trigger changes in the contract is recommended. The Technology Transfer Committee has put together a computer program to help out in this field. Many large corporations have also their own.

TERMINATION

Many different termination clauses do exist. A termination can be voluntary or involuntary, premature or in due time. They can include residual rights, paid up rights or cancellation of rights.

Besides contractual arrangements, it is wise to check the legal obligations imposed by local regulations. Certain countries, particularly countries in development, stipulate that a technology will belong outright to the local licensee. Watch also for residual liability.

In certain cases, the contract calls for improvement rights either way, which could theoretically lead to an almost "reversible" contract (grant back, grant forward). Let us first examine briefly the normal termination possibilities, i.e. termination of con-

tract at the end of the license period.

Most patent license contracts will run up to the last to expire patent on a country-by-country basis. Great care must be exercised here to make sure the licensee is actually practicing one of the remaining patents. Sometimes, licenses where the right includes make, use and sell, the licensee may actually sell in a country without any remaining valid patents but manufacturers in a country where the patents are still valid or vice versa.

In a multipoint, multi-country license, this could become an accountant's nightmare. You may therefore want to tie the termination to one specific case, one specific country even though it could theoretically reduce the overall return from the contract.

Know-how licenses will run anywhere from 3 to 15 years with most in our experience around 10 years. In a recent LIA meeting, the advantage of always including a know-how license where patents are also involved, was clearly established.

Always check for residual rights and obligations that could be called "unwindable" termination clauses, either way. They should usually include a provision for the licensee to get out of a contractual obligation if it doesn't pay out or get too one-sided. They may include an automatic or a trigger clause to go from an exclusive to a nonexclusive. In general, the only right reserved to the licensor is revocation and/or termination in case of breach of contract. This would typically include refusal of payments, breach of confidentiality, inability to pay minimum royalties, inability to perform, etc. It is very important to include clear definition of what does constitute breach and what the parties will do about it, including residual rights for both parties, return of documents, samples, possibility of the offending party to amend etc.

Finally, a number of agreements call for grant backs or access to continuous improvements granted worldwide. The value of such clauses from a business standpoint will vary from case to case. In general, large companies will resist "co-opting" the licensee when licensing their tech-

ology. The only exception may be for immediate improvements with short lead or time usually added and the improvement very narrowly defined including but not limited to e.g. specific inventors, laboratories, etc.

On the other hand, many business persons will insist on getting

paid back and an improvement from smaller companies or private investors. Besides the fact that this is a double standard that the licensee should resist on fairness ground, potential legal ramifications may prove this to be costly.

At most, small companies should agree to a right of first refusal, for

a limited time and a very restrictive field unless it is to their clear advantage to do otherwise. The overall key concepts to keep in mind during the whole process are: strive for a win-win situation. Inevitably all other schemes will turn to the detriment of the parties involved in the long term.