



EXCHANGING VALUE

NEGOTIATING TECHNOLOGY LICENSING AGREEMENTS

A Training Manual



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PREFACE

The World Intellectual Property Organization (WIPO) and the International Trade Centre (ITC), bringing together their respective skills, experience and resources, have joined forces in preparing a training manual for negotiating technology licensing agreements. Underlying this effort is the firm belief of both organizations in the importance of technology, its transfer and dissemination in providing a competitive edge to public and private sector enterprises and the need to build partnerships in a highly competitive and increasingly international business environment. Building the technological capacity of all sectors of the economy, especially in developing countries, Least Developed Countries (LDCs) and countries with economies in transition is critical for improving the quality of life of all people worldwide. WIPO, with its long history and experience in the field of intellectual property, and ITC, with its expertise in assisting governments and the business sector, have pooled their collective experience in this Manual to transmit the message of the importance of due diligence in the negotiation and preparation of licensing agreements for a successful transfer of technology.

Against this background, WIPO and ITC jointly conducted a series of workshops between May 2000 and October 2001 in Cape Town, South Africa; Doha, Qatar; and Delhi and Mumbai, India. They attracted participants from business, industry, science, research and government from the English-speaking African countries, the Arab region and India. This Manual, based on material used and tested in these workshops, provides an opportunity for a wider audience to benefit from this experience.

The focus of the Manual is on the identification and acquisition, or transfer, through licensing, of technology that is owned by another by virtue of an intellectual property right. It is, therefore, not concerned with technology that has, through the expiry or other loss of proprietary rights, become part of the public domain and is, therefore, freely available for use.

Its aim is to provide guidance on negotiating technology licensing contracts and not so much on the legal and regulatory aspects of licensing. Negotiations are practical challenges; they will naturally vary with each individual situation. The goal of any negotiation is to achieve agreement that substantially meets the needs and expectations of the parties; in other words, a “win-win” outcome. The Manual explains in a clear, concise and cogent manner a number of basic rules, related to common factors and standard legal concerns, and offers practical tips for embarking on such an exercise.

We hope that this Manual will be a useful part of your “tool box” in accessing suitable technology or in realizing the maximum business and financial advantages from the practical application of patents and know-how that you may own. We hope that such practical knowledge in the field of licensing negotiations will contribute to more effective transfer of technology, foster entrepreneurship and the development of micro, small and medium-sized enterprises and, consequently, enable wealth creation and overall national economic development.



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Guriqbal Singh Jaiya, WIPO, Director, Small and Medium-Sized Enterprises Division, conceptualized and launched the project and provided strategic guidance and support, suggested parts of the text and reviewed the Manual to improve its clarity, coherence and ability to communicate the key messages.

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ABOUT THE MANUAL

The purpose of this Manual is to provide a basic knowledge and understanding of negotiating technology licensing agreements. It is a recognition of the importance of negotiation in finalizing a successful contract which, by definition, is one that meets the interests and is, therefore, acceptable to both parties. Licensing presupposes a continuing relationship between the parties and such a relationship will not be possible if one party or the other is not satisfied with the terms of the contract. A successful ongoing relationship is based on a contract with mutually acceptable terms. In this context, the importance of negotiation cannot be underestimated.

This Manual assumes the reader has little prior knowledge about or expertise in intellectual property and licensing. The material presented in this Manual has been prepared primarily for training purposes and, therefore, is most effective when used in that context. However, it is also intended to provide general guidance in negotiating technology licenses. Thus, it can be of interest to individuals or companies that may be involved in technology matters, lawyers dealing with technology licensing agreements, inventors who may have an invention that they would like to commercialize, students of technology licensing and government officials charged with the task of encouraging, implementing and managing technology licensing issues in a national context.

Given the complexity of licensing agreements, a variety of issues are of relevance. However, an introductory book of this nature cannot deal with, or adequately deal with, many of these issues. Issues such as bankruptcy and insolvency, standards, product liability, insurance, patent misuse and competition, ethics, government licensing, university licensing, taxation, post licensing issues and intellectual property audit, to name just a few, also merit some or detailed discussion. These are, however, beyond the scope of the present Manual. The objective of this Manual is to provide an introduction to some of the basic issues that arise in technology licensing negotiations

and some practical hints as to how they may best be addressed and dealt with. Thus, the first chapter introduces the concept of licensing and why one should or should not consider licensing. The second chapter discusses the importance of diligently preparing for a licensing negotiation. It underlines the importance of being well informed, defining one's business objectives, assessing in advance one's strengths and weaknesses and preparing an appropriate strategy for the negotiation. Chapter three provides guidance on how one may value technology. Chapter four provides an overview of a licensing agreement. It discusses some of the more common issues that arise in licensing agreements and illustrates many of them with examples of clauses. Chapter five then highlights the importance of negotiation and emphasizes that it is through negotiation that an agreement that satisfies both parties may be reached and the importance of reaching such a "win-win" agreement. In the annexes are some additional materials that will illustrate further the ideas discussed in the Manual. Annex I provides an introduction to intellectual property, Annex II A an example of a "Heads of Agreement", Annex II B "Structure of a Licensing Agreement", Annex III a "Rate the Negotiator" questionnaire, which can be used in a training program on negotiation, Annex IV some useful tips on achieving agreement, Annex V examples of agreements, Annex VI some case studies, which have been used in training potential negotiators in the art of negotiating license agreements and, finally, Annex VII a suggested schedule for a five-day workshop in which the material in the Manual could be used.

Each licensing situation is unique. The principles explained in this Manual should be applied keeping in mind the particular circumstances of the situation at hand. Licensing of technology is a complex and serious process involving technical, financial, legal and other matters. While the Manual has been written in an easy-to-read style with as many of the technicalities as possible provided as examples for further reference, the simplicity in presentation should not mislead the reader into expecting simplicity in negotiating a licensing contract. Anyone entering into negotiations of this kind is, therefore, well advised to engage a competent professional,



preferably a lawyer with licensing expertise. The basic purpose of the Manual will be served if it enables the reader to develop an appreciation of the key issues in a licensing negotiation, the importance of preparation and of the negotiation process and that no deal is concluded until the paper work is done. The reader will also see that a successful licensing negotiation requires a “win-win” situation, that is, a conclusion that meets the business expectations of both parties.

As this Manual is for educational and training purposes, using the material contained in it, subject to the conditions indicated in the disclaimer section, is encouraged. National customization of this material is particularly encouraged for it would serve to make the subject even more relevant and practical for its users.

1. INTRODUCTION - WHY LICENSE?

Ideas, innovations and other expressions of human creativity are converted into private property and protected by law through the intellectual property system. As property, they are tradable assets. Licensing, the right granted by an owner of such an asset to another to use that asset while continuing to retain ownership of that asset, is an important way of creating value with these assets. Licensing creates an income source, disseminates the technology to a wider group of users and potential developers and acts as a catalyst for further development and commercialization.

Intellectual property refers to creations of the human mind. The legal system of intellectual property rights converts this innovative and creative output into property and thus into valuable tradable assets. Human ingenuity and insight manifest in the form of new and/or original ideas, inventions, information, creative expressions, knowledge and other such intangibles that may be embedded in or relate to the products and services that we so depend on in our daily lives. Thus, new and improved technology, know-how, confidential information, software and databases, creative expression in the making of instruction manuals, books, plays, movies, videotapes, television productions, music, multimedia, the image, reputation and goodwill linked to trustworthy names of goods and services, business identifiers, etc., can be protected by a range of intellectual property and certain aspects of unfair competition laws. The intellectual property laws include laws on patents, utility models, trade secrets, trademarks, geographical indications, industrial designs, topographies of integrated circuits, non-original databases, new varieties of plants, and copyright and related rights. For a brief review of the main types of intellectual property rights, see Annex I.

Intellectual property assets can be commercially exploited by their owner or with the permission of the owner by others. One way for



others to exploit intellectual property is through licensing¹ the intellectual property from the owner. The word “license” simply means permission granted by the owner of the intellectual property right to another to use it on agreed terms and conditions, for a defined purpose, in a defined territory and for an agreed period of time.

Licensing of intellectual property is often considered in three broad categories, namely technology licenses, publishing and entertainment licenses, and trademark and merchandising licenses. These categories are, however, not watertight compartments. This Manual will not be dealing with aspects specific to publishing and entertainment licenses nor to trademark and merchandising licenses. Its focus will be on negotiating technology licenses, which mainly involve patents and trade secrets. Software licensing, which may in some countries be protected by patents and could, therefore, fall within technology licensing, is outside the scope of this Manual.

HOW DO COMPANIES BECOME AND REMAIN COMPETITIVE?

Only companies that continue to provide better products and services at a lower price will be competitive, profitable and maintain an edge in a market economy that is globalized, fast moving and demanding. A better product may be a new product or it may be a superior product. A superior product may result, for example, from an improved manufacturing process that increases cost-effectiveness by reducing production time and/or using fewer resources. Such a product may be superior by virtue of its new features, higher quality, lower cost or a combination of these.

How do companies meet this demand for new or better products and services, and provide these at a competitive price? The traditional

1. Intellectual property licensing and technology transfer are important factors in strategic alliances, joint ventures and so-called turnkey contracts. Technology licenses, which, as indicated above, are one type of intellectual property license, fall within the broad concept of technology transfer. Technology transfer is to transfer existing technology for application by a new user in the same area of application or in a completely new area of application by the same or a new user. It could be effected by an activity as simple as teaching and as commonly as the hiring of skilled workers to the formalizing of contracts including technology licensing contracts.

drivers of economic growth: land, labor and capital, are no longer sufficient to provide the necessary competitive advantage that makes the difference between companies that are otherwise very similar to one another. The answer lies in new or improved technology.

Technology means many things to many people. The Merriam-Webster's Dictionary defines technology as "the practical application of knowledge, the capability given by the practical application of knowledge or the manner of accomplishing a task especially using technical processes, methods, or knowledge." The Encyclopædia Britannica defines it as "the application of scientific knowledge to the practical aims of human life or, as it is sometimes phrased, to the change and manipulation of the human environment. Technology includes the use of materials, tools, techniques, and sources of power to make life easier or more pleasant and work more productive. Whereas science is concerned with how and why things happen, technology focuses on making things happen." A popular definition of technology is that "technology is the practical use of scientific information." Therefore, broadly speaking, technology refers to end products of scientific research and development in the form of inventions and know-how which are used as tools or processes for creating new or improved products and services that better serve the needs of the market. There is often a tendency to equate one patent with one technology. This is rarely the case nowadays. Increasingly, a number of patents together are responsible for a technology and a number of technologies for a product, for example, a camera or a car.

Such technology may be acquired either through research and development undertaken by the company itself, in cooperation with others, or by acquiring technology developed by others which may be on offer in the market.² Often, it is prudent to obtain technology from others instead of investing the time and resources to find the perfect solution oneself; this would be the case, for example, if the necessary

2. Many countries have in place legislation restricting the sale or licensing of certain technologies considered sensitive to national security. It is, therefore, important to check whether the particular technology being considered for licensing falls within the ambit of such laws. See further fn 26.



technology cannot be developed in-house for reasons of cost, time-frame, human resources and complimentary assets, it may make good business sense to use or adapt a technological solution that has already been found by others and is available on the market. Sometimes, it may even be necessary to obtain licenses for technologies which are part of industry, national or international standards set by standard-setting organizations. A license may be necessary in a situation where a new or improved product inadvertently violates the intellectual property rights owned by another.

Further, a company that has come up with a new or better product or process will do well to know that there may be others searching for such a solution and it could be a good business option to transfer that knowledge and earn a bonus from an additional source of income. In fact, a number of companies have either shifted from manufacturing of products to licensing of intellectual property in the form of patents and know-how or have been set up with the sole objective of creating and licensing intellectual property without manufacturing any products. In other words, the technology becomes the product. Today, even the largest companies are no longer doing everything in-house and depend on outside sources not only for key components and services but also for technologies. Some other companies just develop technology and outsource the manufacture of the products to other companies in their own country or abroad by entering into a licensing agreement for this purpose.

Given the intangible character of technology, its use by one does not detract from its use by another. In other words, it can be used simultaneously by many users for the same or different purposes without impacting in any way on its quality or functionality. Therefore, the owner of technology could potentially license the use of his technology to as many licensees as he wishes, maximizing the earning potential of his technology constrained only by the terms of the agreements that he enters into with the potential licensees. In a sense, one technology could become the basis for a whole range of related or unrelated products and services made by one or many enterprises in a potentially large number of locations in one or many countries.

IS LICENSING THE RIGHT STRATEGY?

Before embarking on either “licensing-in” technology, which is to acquire rights to technology developed by another, or “licensing-out” technology, which is to grant to another the right to use³ technology to which one has proprietary rights, through a licensing agreement, it is important to consider the preliminary question as to whether licensing is the right strategy to adopt. It may well be that for an owner of intellectual property, the best strategy is to manufacture and market the product. If not, however, other options include entering into an outright sale of the intellectual property rights over a given technology. Sale of intellectual property rights through assignment may not be practical because often the buying of intellectual property alone is not attractive without human capital, a product, a developed market and/or an established business or revenue stream. Still, sale or assignment may be an option in some cases.

SELLING VERSUS LICENSING

In selling or buying rights to the intellectual property in technology (where the legal transaction is called an “assignment”), the ownership rights for that technology pass from seller to buyer and it is a one-time activity. The technology is bought or sold for an agreed price. There will be only a few continuing obligations in the relationship between the seller (assignor) and the buyer (assignee). Frequently, such transactions involve a one-time transfer of funds, but financial compensation might also be entirely or partially deferred and may depend on many factors or contingencies (such as the success of the commercialization). A technology owner, who has no experience in bringing a product to market and who is not interested in being involved in such day-to-day matters as technology at work, may consider that the ideal solution would be to find a buyer for the technology and to complete the whole transaction at one time.

3. The rights conferred by licensing are extensive and may include the right to make, have made, use or sell, import and export (patent), the right to reproduce, display and distribute (copyright) and the right to use a trademark in connection with distribution. We employ here the shortcut of referring to the right to “use” technology.



In contrast, a licensing agreement transfers from the licensor to the licensee the right to use the intellectual property in the technology and to make, use and sell products embodying the technology, in a specified manner for a specified time in a specified region. In other words, the licensor continues to have the proprietary rights over the technology and has only given a defined right to the use of that technology.⁴ The licensor who wishes to concentrate on one geographic market (e.g. North America) or field of use (e.g. the market for two-stroke engines) may license to another with greater capacity or interest in other markets or fields of use. That way, in contrast to getting nothing from that unfamiliar market, the licensor will have the possibility of receiving an additional income having licensed-out his intellectual property.

Furthermore, entering into a licensing agreement is to enter into a relationship, usually for a certain length of time. It pre-supposes a continuing interaction where the licensor and licensee work towards realizing their common goal, which is to effectively use the technology for their mutual benefit. Assuming that the relationship is successful, and therefore profitable, it would mean that both the licensor and licensee would be financially compensated, usually and primarily in the form of an ongoing incremental income stream on the basis of the success of the product in the marketplace.

Licensing, therefore, entails very different legal and practical consequences to those of a sale or assignment. It also serves very different business purposes. If these purposes are not relevant for the parties then licensing is not the strategy to adopt.

4. In the field of biotechnology where transfer of a technology alone may not be sufficient to practice the invention, the right to use (but not own) certain tangible property, usually biological material, may also be transferred through a hybrid bailment and patent license agreement.

ADVANTAGES OF LICENSING

For the Licensor

A company that cannot or does not want to be involved in the manufacture of products could benefit from licensing-out technology by relying on the better manufacturing capacity, distribution of outlets, local knowledge and management and other expertise of one or more partners.

Licensing-out allows the licensor to retain ownership of the intellectual property in the technology and to derive an economic benefit, usually in the form of royalty income, from it.

Licensing-out could also help a company to commercialize its technology or expand its current operations into new markets more effectively and with greater ease than on its own.

Licensing-out may be used to gain access to new markets, which are otherwise inaccessible. The licensee may agree to make all the adaptations required for entering a foreign market, such as translation of labels and instructions; modification of goods so as to conform with local laws and regulations; and adjustments in marketing. Normally, the licensee will be fully responsible for local manufacture, localization, logistics and distribution.

A license agreement may also provide a means for turning an infringer or competitor into an ally or partner by avoiding or settling an intellectual property litigation, which may have an uncertain outcome or may be costly and/or time consuming.

Licensing can provide some degree of control over innovations and also over the direction and evolution of technologies where interoperability is important.

For the Licensee

There is often a rush to bring new products onto the market. A license agreement that gives access to technologies, which are already established or readily available, can make it possible for an enterprise to reach the market faster with innovative technology.

A company that may not have the resources to conduct its own research and development may, through licensing, gain access to technical advances that are necessary to provide new or superior products.

There are licensing-in opportunities that, when paired with a company's current technology portfolio, can create new products, services and market opportunities.



DISADVANTAGES OF LICENSING

For the Licensor

The licensor's own investment can sometimes generate better profits than operating through a license agreement.

A licensee can become the licensor's competitor. The licensee may, if granted the right to operate in the same territory, "cannibalize" sales of the licensor, causing the latter to gain less from royalties than it loses from sales that go to its new competitor. The licensee may be more effective or get to the market faster than the licensor because it may have fewer development costs or may be more efficient.

A license agreement can be disadvantageous when the technology is not clearly defined or is not complete. In such a case the licensor may be expected to continue development work at great expense to satisfy the licensee.

The licensor may become critically dependent on the skills, abilities and resources of the licensee for generating profits.

For the Licensee

The licensee may have made a financial commitment for a technology that is not "ready" to be commercially exploited, or that must be modified to meet the licensee's business needs.

A technology license may add a layer of expense to a product that is not supported by the market for that product. It is fine to add new technology, but only if it comes at a cost that the market will bear in terms of the price that can be charged. Multiple technologies added to a product can result in a technology-rich product that is too expensive to bring to market.

Companies relying on licensed technology may become too technologically dependant, which could eventually become a barrier to their future expansion or their ability to adapt, modify or improve their products for different markets.

2. PREPARING TO LICENSE TECHNOLOGY

There is no substitute for diligent preparation. Being ill-prepared would be fatal for a forthcoming licensing negotiation. The negotiation itself is the tip of the iceberg. Being informed of the market, the technology, the potential licensor or licensee and their particular business circumstances and one's own business objective(s) is indispensable for ensuring a successful negotiation.

DUE DILIGENCE

Due diligence is a necessary first step before embarking on any kind of business transaction and particularly important when considering entering into a long-term business relationship such as a license agreement. Having identified one's short- and long-term strategic objectives and how entering into a licensing agreement, whether it is to license-out technology or to license-in technology, fits into those objectives, it is imperative to engage in an exercise of due diligence. Such an exercise is the process of gathering as much information as possible on the potential licensor or licensee, the technology and other similar technologies available in the market or being developed, the market, the legal and business environment (local or international, as the case may be) and any other information that would enable the potential licensor or licensee to be better informed. The exercise must be conducted in a legitimate manner, keeping in mind one's financial and time constraints, and undertaken within the bounds of the law.

It is difficult to prioritize or identify any one or more items of information as the most important in a due diligence exercise and it would be misleading to do so. What information is important depends on a variety of factors which vary from situation to situation. However, it may be useful to point out that in a due diligence exercise information is often sought with respect to the following: the ownership of the technology, is it proprietary and have all proper procedures been followed to ensure its protection in the relevant markets, are there any third parties claiming rights over the intellectual

property asset, can it deliver, in that, will it serve to reduce costs, improve performance or deliver other identifiable benefit, do other intellectual property rights need to be acquired to fully implement the technology in question, what in fact is its economic and strategic value, in that, to what extent does it fit into and further the business objectives of the alliance?

For obtaining information on all of these areas a range of sources can be usefully consulted. These will include the following:

1. Publicly available information of publicly-traded companies.
2. Online and subscription database services for the relevant market or products.
3. Trade publications.
4. Trade and technology exhibitions, fairs and shows.
5. Technology licensing offices of research-based universities and publicly-funded research and development institutions.
6. Relevant government ministries, departments and agencies.
7. Professional and business magazines, journals and publications concerning the relevant products and markets.
8. Professional and business associations.
9. Technology exchanges.
10. Innovation centers.
11. Patent information services.

Depending on the particular field of interest and circumstances, a company will consult one or more of the above sources of information. Of the above sources of information, patent documents as a source of business, legal and technological information are, for a variety of reasons, an underutilized source of competitive intelligence for enterprises, especially the small and medium-sized enterprises. This is generally true of most small and medium-sized enterprises worldwide and more so in the developing and least developed countries. Therefore, in this chapter, the focus will be on explaining the reasons for using this extremely valuable source of competitive intelligence which is increasingly becoming more accessible and user friendly through the services provided by the national patent offices

and by value-added private sector technological and business information service providers.

PATENT INFORMATION

An agreement to license technology is often part of a larger business transaction, which may include agreements on a multitude of other issues that are generally linked to, but may be separate from, the agreement to license technology. The technology sought to be licensed may be protected by one or more patents, subject to copyright and/or may have been kept as a trade secret. There may be other intellectual property rights surrounding the technology, such as trademarks protecting the brand or name of the company, copyright protecting documentation, trade secrets protecting a whole host of confidential information including know-how and so on (see Annex I for a brief review of these rights). Further, there may be a variety of other concerns relevant to the particular business relationship being formalized between the parties. All of these issues may merit different agreements or perhaps constitute different parts of a single agreement.

Innovative technologies, however, are often protected by patents, given the intrinsic risk and technical difficulty of protecting technologies as trade secrets and the advantages that may be derived from patenting. In locating such technologies, identifying potential licensors and licensees and preparing for a technology licensing negotiation, consulting and researching the accumulated database of patent applications and granted patents, known as “patent information”, is useful.

What is Patent Information?

Since the patent system requires patent applicants to make public disclosure of their inventions, all inventions for which patent protection has been sought are documented, catalogued and made freely available for public consultation either 18 months after the filing of the patent application and/or immediately after the grant of the patent.



National or regional patent laws require that the disclosure be made in a manner sufficiently clear and complete for the invention to be carried out by a person skilled in the art in the technological field concerned. Therefore, patent documents provide more *detailed information* about a technology than most other publications. They are also a *unique source of information*, as much of the technical information contained in patent documents is never made available through any other means of publication.

Consisting of some 42 million documents published by patent offices all over the world and growing by about a million every year, patent information is the *largest repository of technical information* in the world.

In a large number of countries, patent applications are published 18 months after the filing of the relevant patent application. This is often the earliest time that the relevant information becomes available to the public, and, even then, newly published patent applications are often the *most up-to-date source of technical information* in a new area of technology.

Patent information *encompasses every sphere of technical and scientific activity*, from the simplest to the most complex of solutions to technical problems. All patent documents adhere to a unique format of bibliographic data. More than 50 different fields, each representing valuable technical or strategic/business information, are accessible for each document. In addition, patents, in most countries, are classified using the International Patent Classification (IPC), which is an internationally-agreed system of classification, which branches out into some 70,000 sub-divisions (see www.wipo.int/classifications/ipc/en/index.html). This makes it relatively easy to retrieve patent documents relating to a specific field of technology.

Using Patent Information

Information on technological activity

As indicated earlier, there are many useful ways of locating technology and identifying business partners. However, for a truly comprehensive search of technologies that are patented there is nothing comparable to the information available through patent documents.

As patent databases consist of most of the patent applications and grants anywhere in the world, information on every possible technology for which protection has been sought may be easily accessed, opening the way to a vast reservoir of potentially useful technologies as well as many potential suppliers and users of technologies.

One can, therefore, locate possible alternative technological solutions for a given technical problem in implementing a new process and/or developing a new product and, as there may be multiple possible solutions to a known technical problem, there may be multiple technological solutions to choose from. It is important also to keep in mind that, at times, the technical solution to the problem at hand may be found in a totally different technical field. From a negotiating standpoint, it is also a good idea to have an understanding not only of the targeted technology but also of other relevant technologies, if any.

As patent documents provide information about owners of technology, a would-be licensee will have basic information about those who are involved in a given technological area, who the major players are and their current levels of technological activity. An owner of technology wishing to license-out will find information on the technological activity of others useful in gaining an idea as to how his technology is placed in the market vis-à-vis that of others and who may be interested in that technology.

It is important to clarify that, as with an owner of any property, simply because a party owns intellectual property does not mean that he or she would want to enter into a licensing agreement, nor does it mean

that such a party would be willing to license the intellectual property rights at a price that is affordable.

Is the technology protected?

Having identified technology that is sought to be licensed-in, a crucial preliminary question to be addressed is whether or not the technology is protected by one or more types of intellectual property rights.

If the technology is not protected, the issue of licensing of intellectual property rights does not arise. A technology is said to be in the public domain when there is no legal requirement to seek the consent of anyone to use it. It is, therefore, crucial to avoid negotiating and paying for any such technology that is in the public domain.

If the technology has been protected by a patent, it is important to check whether the patent is still valid in the country or region in question. For example, the patent may no longer be in force due to the expiration of its term (the maximum possible term being 20 years from the date of filing of the first relevant patent application) or due to non-payment of maintenance fees, or it may have been invalidated in a court proceeding. Most importantly, since intellectual property rights are territorial, their validity is limited to the national or regional jurisdiction for which they may have been granted. It is possible that a patent, though granted in one country or region, has no validity in the country or region of interest to a prospective licensee. That is, a patent may not have been applied for in the country in which the invention is to be exploited or in the country or countries that are possible export markets for the product protected elsewhere by a patent.

In this context, it is worth noting that only some five million patents are in force out of the 42 million patent documents. The statistics also show that, on average, for any one invention a patent application is filed in only four countries, which means there is a good possibility that a particular invention protected by a patent in one country may not be protected in many, most or all countries of interest to a prospective licensee.

In addition to the possibility of an action for infringement, and/or invalidation, the quality of a patent needs to be assessed. It is possible that the effective use of a targeted patented technology depends on other patented technologies. This means that one or more licenses to use such other technologies would become necessary. Assessing all these issues will usually require the expert advice of an appropriately qualified intellectual property professional.

Thus, information contained in patent documents allows one to identify potential technologies, locate possible licensors and licensees and gain an insight into a number of issues of strategic importance from a business strategy and negotiating perspective, including the strengths and weaknesses of a particular technology over alternate solutions, the trend(s), if any, in the specific technical field, etc.

Content of Patent Documents

In legal parlance, a patent document is usually called a patent specification. It is divided into a number of sections. In most countries, a consistent approach has been adopted to the layout and contents of the sections of a patent specification. The first page (or front page) of a patent document generally displays bibliographic information. The bibliographic data gives information concerning the patent application, i.e., who filed the application, when and where it was filed, and the technical fields to which the invention relates. The first page usually also includes a title, an abstract and a representative drawing. Bibliographic information is an essential means of identifying, locating and retrieving patent documents. If the name(s) of inventor(s) and/or of the owner(s) of the invention are known, all past patent applications under their names can be found. If the technical field in terms of the IPC is known, all documents in that technical field can be retrieved. The application date is the reference for the period of time the patent can be in force. An abstract together with representative drawings, where applicable, gives a concise summary of the technology of the invention and enables one to save time by focussing on the most relevant patent documents. As indicated earlier, because the bibliographic data provides names and addresses of the inventor(s)



and the owner(s) of the invention, it is an essential means of identifying the major players in a specific technical field and an important source of information for obtaining contact details of potential licensors and licensees.

The claims determine patentability and define the scope of the protection requested by the applicant and granted by the patent. On the one hand, in defining the scope of protection, it is natural that an applicant will wish to define it as broadly as possible. On the other hand, the examining industrial property office would like to make sure that the resulting patent does not cover what is already known or what has not been described in detail by the applicant in the description of the invention. The combined efforts of the applicant and the office concerned result in clarifying the scope of protection as embodied in the claim(s), which state(s) exactly what the inventor/applicant has been allowed to claim. Due to the technical-legal and abstract nature of the language in which claims are written, it is sometimes difficult for someone who is not specialized in that area of work to obtain a clear and concise picture of the invention by merely reading the claims. In most situations, the assistance of a legal expert will be required.

Often, patent applications are published together with a search report or a list of prior art references revealed during the search of the patent application. The search report may be incorporated in the patent document or it may be published separately.

The written description is the part that needs to be read to understand the specific invention or technology and is sometimes quite lengthy; where appropriate, it has accompanying drawings. It discloses clearly the technical details of the invention concerned, normally illustrated by working examples, showing how to carry out the invention. According to most patent laws, it should be clear and complete so as enable anyone 'skilled in the art' to practice, work or carry out the invention. In most countries, the description of the invention is structured in four sections: the background of the invention, a summary of the invention, a brief description of the drawings (where applicable) and a detailed (written) description of the invention. The

background of the invention forms the introductory part of the text of the patent document. It indicates the technological field to which the invention relates. The state of the art, i.e., the solutions presently known to the technical problem to which the invention relates, is given in a summary form, pointing to the defects or deficiencies of this prior art. The summary of the invention describes its broad outline and how it is embodied; that is, it explains the function of the elements constituting the invention, without entering into the details of the description of the elements themselves. The detailed description of the invention is a detailed explanation of the invention with references to the drawings (if applicable) as a whole or in part. This part of the description is an important part of the patent document as it contains the purported new solution to the given technical problem, which must be consistent with the claim(s).

Access to Patent Information

In the past, access to patent information was both difficult and time-consuming. The situation improved significantly with the advent of commercial online databases in the 1970s, and CD-ROMs in the late 1980s. Today, however, in what is a major breakthrough in the world of technical information, the Internet provides the most democratic access yet to patent information.

Anyone who has access to the Internet may browse, free of charge, for example, the full text (description, claims, drawings) and first page of published patent documents at <http://ep.espacenet.com> where some 38 million patent documents can be accessed. At <http://www.wipo.int/ipdl> the first page data of published international patent applications filed under the PCT (Patent Cooperation Treaty) may be consulted. Through the links provided there, the searchable databases hosted by a variety of other patent and intellectual property offices around the world can be accessed. In addition to the web sites of offices around the world mentioned therein, it may also be of interest to consult the web site created by the Singaporean intellectual property office at <http://www.surfip.gov.sg>. It should, however, be mentioned that this kind of search could never replace a professional search.



It is thus recommended that a local patent attorney or the local patent office be consulted. The latter may have a patent information service that would either conduct the searches or assist in conducting the search. They are likely not only to have access to the Internet and, therefore, to espacenet and the Intellectual Property Digital Library Database of WIPO, but would also be the repository of a variety of CD-ROMs containing useful patent information. Some good starting points regarding CD-ROMs are Espace Access published monthly by the European Patent Office (EPO), Patents BIB, a bi-monthly publication by the United States Patent and Trademark Office (USPTO) containing United States (US) patent bibliographic data, and USAPAT, which are facsimile images of US patents published weekly by the USPTO. ESPACE WORLD, which is the PCT full text and bibliographic data published once every two weeks by WIPO, and ESPACE EP, containing European patent documents may also be referred to. There are also a number of private companies⁵ that provide database search services for a fee.

KEEPING CONFIDENCE

It is important to keep in mind that it is not sufficient to enter a negotiation based on pure trust as on many occasions the negotiations do not necessarily result in an agreement. In such situations, it is not uncommon for one party to the negotiation, generally the potential licensor, to accuse the potential licensee of having abused the confidence placed in him during the negotiations by having misappropriated and used the confidential information disclosed during the aborted discussions for commercial purposes. To safeguard against such an eventuality, it is standard practice to enter into a mutual non-disclosure agreement, also referred to as confidentiality agreement or a secrecy agreement. For an example of such an agreement see Annex V. Any such agreement would have to be customized based on the facts and circumstances of a given situation and should be reviewed by an appropriate legal professional.

5. See Derwent (<http://www.derwent.com>), Dialog (<http://www.dialog.com/>), STN (<http://www.stn-international.de>), Questel Orbit (<http://www.questel.orbit.com/index.htm>), Micropatent (<http://www.micropatent.com>), WIPS Global (<http://www.wipsglobal.com>), to name a few important examples.

MEMORANDUM OF UNDERSTANDING (MOU) OR LETTER OF INTENT

If both parties have reason to believe that they are adequately prepared for the negotiation then the need for a preliminary understanding in the form of an MOU or Letter of Intent should normally not arise. However, despite the best efforts of the parties, there are situations in which it becomes necessary to enter into such an MOU or Letter of Intent prior to the signing of a licensing agreement. This may happen prior to the commencement of formal negotiations or sometimes during protracted negotiations when, for example, there is a need to publicly announce the launching of a new product or apply for funding. Before entering into an MOU or Letter of Intent it is important not to agree to anything proposed by the other side without understanding its implications for the final licensing agreement. This is particularly true in a country where an MOU or Letter of Intent is treated as legally binding. See Annex V for further explanation. As with a confidentiality agreement discussed above, any such MOU or Letter of Intent would have to be customized based on the facts and circumstances of a given situation and should be reviewed by an appropriate legal professional.

DISTRIBUTORSHIP AGREEMENT

Before embarking on a long-term technology licensing agreement the parties may prefer to get their feet wet through a distributorship agreement. Such an agreement will enable the potential licensee to distribute a product of the potential licensor in a specified market under specified terms and conditions. A successful relationship built here could well ease the way into a successful technology licensing agreement.

3. HOW MUCH IS IT WORTH?

Unlike tangible property, which has well-recognized means of establishing a value and thus a price, there is no easy way to determine the value of intangibles. However, as with any other transaction, a price must be established and several methods, mostly borrowed from the world of tangible property, have been developed and successfully applied to facilitate this task.

Valuing technology becomes important when the potential licensee has:

- recognized the need for new technology and identified the most appropriate technology;
- identified the potential licensor; and
- decided that a license arrangement is the most appropriate business strategy.

At this stage, three issues or questions become relevant:

- How much can the company afford to pay for the right to use the licensor's technology?
- In what ways should the licensee pay the licensor? and
- How much should the licensee pay the licensor?

The first of these issues - what the company can afford - is of crucial importance. A prudent licensee cannot base decisions on the theoretical value of technology but rather on whether it will enhance his ability to gain revenues.⁶ If the price of the new technology, when added to the cost of the product, results in a cost of goods that is higher than what the market will bear, the licensee will lose money and the license negotiation will have been a wasted or harmful exercise. Preparation for

6. Increase in revenue is not always the sole objective of entering into a licensing agreement. There are other gains, which are not easily quantifiable such as improved image and greater visibility. This is particularly true in the case of trademark licensing and character merchandising but also evident where companies refer to the use of patented technologies to enhance the brand image of their products as being "high-tech."

a licensing negotiation means determining whether there are adequate financial resources to meet all the expenses involved in acquiring and utilizing the licensor's technology and to further realize a profit when the technology or product is ultimately marketed.

Ultimately, the objective is that both the licensor and licensee should share in the profits associated with the use of the technology in a fair and reasonable manner.

VALUATION OF TECHNOLOGY

Valuation is a difficult exercise and often a subjective one. An owner of an asset, a potential purchaser, a financier and an insurer, will each value a fixed asset differently, even though it is an identifiable asset which is measured in a common currency. Traditionally, the valuation of assets reflected their historical cost, as adjusted by depreciation, and their value was directly related to their expected profitability. In recent years, however, this link is no longer automatically applicable, as "new economy" companies generate earnings seemingly unrelated to their fixed assets. This is happening, primarily, because of their use of intangible assets and, in particular, technology. It thus follows that valuing intangible assets is even more difficult, and even more subjective!

Even so, several methods can be used to value technology.⁷ Given that valuation may be subjective and depends on the data that is used in the valuation model, the valuations derived from each of the criteria will not be the same. However, they should provide some guidance by establishing certain parameters within which the financial arrangements could be negotiated, including not only the amounts, but also the ways in which payments are to be made.

7. See Deborah Hylton and David Bradin, "Intellectual Property of Biotech Companies: A Valuation Perspective", April 2002, http://faculty.fuqua.duke.edu/courses/mba/2001-2002/term4/hlthmgmt491/Files/DUKE_LECTURE.doc, Jeffrey H. Matsuura, "An Overview of Intellectual Property and Intangible Asset Valuation Models", Research Management Review, Volume 14, Number 1, Spring 2004, page 33 and references cited in <http://www.wipo.int/sme/en/documents/valuationdocs/index.htm>.

Cost Approach



The licensor's investment in the technology is represented by those costs associated with developing, protecting and commercializing the technology. These expenditures are known to the licensor and can reasonably be estimated by the potential licensee. They represent the base, or minimum that the licensor will want to recover, with interest. If however, for example, the license is non-exclusive⁸ and/or there are separate territorial rights, the licensee could argue that the recoupment of the licensor's investment should be borne by more than one party. The potential licensee might also argue that there were some unproductive research expenditures, which should not be taken into account. The potential licensee might argue as well that its investment in commercializing the technology should receive some credit or acknowledgement. Indeed, the potential licensee may argue that the cost incurred by the would-be licensor is irrelevant to him. He is only interested in the value of the technology to his business, not its cost to an unrelated party. Also, the licensor will not often reveal the true cost of the technology development and the potential licensee has no way to confirm that cost. In the end, the goal should be for both parties to have a realistic understanding of the licensor's investment and its relevance to the payments to be made to the licensor by the licensee.

Sometimes the cost approach is used to estimate all the costs that would be incurred if the licensee were to obtain, from a different source, technology that could deliver an identified process or product. This might be through a third party with competing but non-infringing technology. The cost approach is also used to establish costs that would be involved in the creation of similar technology taking into account the prices and rates of payment on the date of valuation (cost of technology reproduction/reinstatement). In these and other appropriate situations, the licensee would estimate the time and the cost of acquiring or developing alternative technology. The licensee is effectively determining the cost of the next best alternative, and this,

8. See further Chapter 4, "Overview of a Licensing Agreement."

where possible, can be a useful measure of the importance and value of the licensor's technology to the licensee. This is less a valuation calculation and more a negotiation strategy related to what options the potential licensee has for alternative business partners if the potential licensor will not negotiate favorably on the financial terms.

Income Approach

Successful technology licensing means, for the licensee, increased profits because of the use of the intellectual property protected technology. The income approach to valuation involves making educated guesses (or more precise measures, if possible) as to the amount of income that the new technology will generate. The issue then is to determine the respective shares the parties should each have of the benefits and find a royalty formula that matches that calculation.

Some licensing professionals start their valuation calculations with a "rule of thumb", according to which the licensor should receive around one quarter to one third of the benefits accruing to the licensee, often referred to as the "25% rule."⁹ This rule has the advantage of being well known and widely quoted, and so is a common starting point for many licensors and licensees. It can then be varied by the parties in negotiation for any number of equitable and logical reasons. Often these will include the issue of risk and such factors as the technology's stage of development (embryonic to fully developed), the capital investment required, the content and strength of the intellectual property package and an analysis of the market.

By way of illustration, if a new product is expected to sell for US\$1,500, and all costs total US\$750, there will be an operating profit of US\$750. Of this, 25% is US\$187.50. This is the amount, according to the "rule", the licensor should receive, and could be a starting point for further negotiation having regard to the above risks and royalty variables and any other relevant factors.

9. See Robert Goldscheider, John Jarosz and Carla Mulhern, "Use of the 25 Per Cent Rule in Valuing IP", *Les Nouvelles*, December 2002, page 123.

It may be that one party does not wish to pay or receive running royalties for the term of the agreement, but wants only a lump sum (perhaps in time-based or event-based installments), and therefore a fully-paid-up license.

In this event, the next step would be to prepare a statement identifying for each year all the cash inflows and outflows, for the term of the agreement (n), and to then apply the formula $1 / (1 + r/100)^n$ and calculate the lump sum or Net Present Value (NPV). This calculation requires the selection of a discount rate, r , which is the cost of capital adjusted for risk and so effectively incorporates or reflects all the risks. The NPV establishes the present value of future income streams expected from the use of the technology under consideration. Obviously, this method is only as good as the precision of the data that is put into it. In some negotiations, one or both parties will hire accountants to run various scenarios of possible return and discount depending on certain scenarios. This may be simple or complex, involving more elaborate valuation technologies such as “real options” or “Monte Carlo simulations.” In many cases, however, the parties who are in business will have a well-developed practical sense of the risk and possible returns from the licensed-in technology.

It should be noted that the NPV (also termed the Discounted Cash Flow or DCF) analysis is relevant to any issue where time and money are relevant factors. It can thus be a tool of wide application.

Market Approach

Sellers and purchasers of real estate and used cars know, or can readily ascertain, what other parties have agreed for similar houses in the same area, or for the same make and year of car. It follows that comparable market transactions are a convenient and useful way of determining the value of an asset in anticipation of negotiating a purchase or sale.

The same approach is beneficial in licensing, though perhaps not as useful because there will seldom be identical technology and intellectual property packages. In addition, the commercial details of

an agreement will not be ascertainable where they are considered by the parties to be competitor-sensitive. This is more likely to be a problem where there is an exclusive worldwide license. Where it is non-exclusive, or is exclusive in different geographical territories, subsequent licensees will often know of, or at least have a good idea of, other licensees' terms and conditions. Furthermore, non-exclusive licensees sometimes require that details of subsequent licenses be provided, or might require, through a "Most Favored Licensee" right, that a more favorable subsequent deal be made available to them as the earlier licensee. In practice, these may be hard to use and enforce as agreements are often confidential.

To some extent, it is useful to look at existing royalty ranges in certain types of licensing transactions. These may provide "evidence" in arguing for a particular rate in a negotiation, and may also provide useful guidelines. However, licenses are notoriously difficult to compare because the nature of the technology and the scope of the license will have a significant effect on the value of the license. A very broad exclusive license to make, use and sell all the rights to all patents in a certain technology will have a very different value than a limited non-exclusive license to exploit a technology in a narrow field of use.

Still, information on other license royalties can be interesting and shows a wide range of royalty rates. An early survey by the Biotechnology Licensing Committee of the Licensing Executives Society (LES) reported that the following royalty ranges for non-exclusive licenses were considered representative for:

- Research reagents (e.g. expression vector, cell culture), 1 - 5% of net sales.
- Diagnostic products (e.g. monoclonal antibodies, DNA probes), 1 - 5% of net sales.
- Therapeutic products (e.g. monoclonal antibodies), 5 - 10% of net sales.
- Vaccines, 5 - 10% of net sales.
- Animal health products, 3 - 6% of net sales.
- Plant/agriculture products, 3 - 5% of net sales.

The Licensing Economic Review of September 1990 reported that, for early-stage recombinant pharmaceuticals, royalty rates of 7-10% applied for exclusive arrangements and 3-4% for non-exclusive. Following regulatory approval, the rates for exclusive licenses were 12-15% and for non-exclusive licenses they were 5-8% of net sales.

M.Yamasaki in *les Nouvelles*, September, 1996, reported on average royalty rates reflecting both the R&D stage at the time the license is signed and the situation of the parties to the agreement. Thus, where a small biotech company licensed-in from a research institution or a university and, after further development, licensed-out to a major pharmaceutical company the added value was reflected in increased royalty rates:

R & D Stage	Bio/Uni	Pharma/Bio
Discovery	3%	7%
Lead molecule	4-5%	9%
Pre-clinical	6-7%	10%
Phase 2-3		15%

These figures alone, however, do not show the full picture of the economic value of the deals and it is a frequent licensing pitfall to think only in terms of percentages and numbers. Most often, the actual terms of license agreements, including what may have been paid in the form of lump sum payments and other incentives that may have been agreed to, are unknown. Yet, they affect substantially the royalty rates agreed to. It is, therefore, difficult to assess what a given percentage royalty actually means.

In summary, the usefulness of the market approach is often very limited. Generalizations, surveys and industry norms at least provide a starting point. What can be much more useful, however, is knowledge of a comparable licensing arrangement in the same industry which could provide another basis or check for a particular valuation of a particular technology.

Other Criteria

Tom Arnold and Tim Headley, in “Factors in Pricing License” in *les Nouvelles*, March, 1987, compiled a checklist of 100 important considerations in setting the value of technology licenses. These are listed under the following nine headings:

- Intrinsic Quality (e.g., significance of technology and stage of development)
- Protection (e.g., scope and enforceability)
- Market Considerations (e.g., size and share)
- Competitive Considerations (e.g., third party)
- Licensee Values (e.g., capital, research and marketing)
- Financial Considerations (e.g., profit margins, costs of enforcement and warranty service)
- Risk (e.g., product liability and patent suits)
- Legal Considerations (e.g., duration of the license rights)
- Government (e.g., local laws on royalty terms and currency movement).

Royalties have been discussed in patent infringement lawsuits where courts engage in the task of determining what a correct royalty would have been in order to determine damages from infringements. The courts look at many factors and these are useful to consider as a sort of checklist when examining the value of intellectual property in a non-infringement situation:

- “1. The royalties received by the patentee for the licensing of the patent in suit, proving or tending to provide an established royalty.
2. The rates paid by the licensee for the use of the other patents comparable to the patent in suit.
3. The nature and scope of the license as exclusive or non-exclusive; or as restricted or non-restricted in terms of territory or with respect to whom the manufactured product may be sold.
4. The licensor’s established policy and marketing program to maintain his patent monopoly by not licensing others to use the invention or by granting licenses under special conditions designed to preserve that monopoly.

5. The commercial relationship between the licensor and licensee, such as, whether they are competitors in the same territory in the same line of business; or whether they are inventor and promoter.
6. The effect of selling the patented specialty in promoting sales of other products of the licensee; the existing value of the invention to the licensor as a generator of sales of his non-patented items; and the extent of such derivative or conveyed sales.
7. The duration of the patent and the term of the license.
8. The established profitability of the product made under the patent; its commercial success; and its current popularity.
9. The utility and advantages of the patent property over the old modes or devices, if any, that had been used for working out similar results.
10. The nature of the patented invention; the character of the commercial embodiment of it as owned and produced by the licensor; and the benefits to those who have used the invention.
11. The extent to which the infringer has made use of the invention; and any evidence probative of the value of that use.
12. The portion of the profit or of the selling price that may be customary in the particular business or in comparable businesses to allow for the use of the invention or analogous inventions.
13. The portion of the realizable profit that should be credited to the invention as distinguished from the non-patented elements, the manufacturing process, business risks, or significant features or improvements added by the infringer.
14. The opinion testimony of qualified experts.
15. The amount that a licensor (such as the patentee) and a licensee (such as the infringer) would have agreed upon (at the time the infringement began) if both had been reasonably and voluntarily trying to reach an agreement; that is, the amount which a prudent licensee - who desired, as a business proposition, to obtain a license to manufacture and sell a particular article embodying the patented invention - would have been willing to pay as a royalty and yet be able to make a reasonable profit and

which amount would have been acceptable by a prudent patentee who was willing to grant a license.”¹⁰

There is, thus, no limit to the factors that may be relevant to the valuation of a particular technology. Of course, with so many factors, many of them will not be important or decisive depending on the situation. What is important will depend on each party's strategic objectives and business needs. Thus, if a licensee's need, for example, is to manufacture successfully the licensed product in the territory, and, rather than export, to sub-license other manufacturers in neighboring territories, it will be very important for the licensee to have exclusivity for the geographic areas of interest and to have the right to grant sub-licenses. The strategic objectives, and the necessary rights, will impact on the valuation and the accompanying negotiations, for both parties.

Concluding Comments

The principal approaches to valuation of technology all have their limitations, which need to be borne in mind when valuing intangible assets. Each licensing negotiation is unique and it is difficult to apply the experiences of others or theoretical rules to the distinct situation at hand. However, the rules discussed above should provide some guidance in approaching the question of valuation. Further, it is advisable that the parties rely on the assistance of experienced valuation professionals and/or accountants to guide them through the complexities of a valuation exercise. Finally, a valuation is for the purpose of negotiating terms and conditions that would be acceptable to both parties and, as the Chapter on “Negotiating Guidelines and Tips” makes clear, while it would be nice to get the deal you deserve, you actually get the deal you negotiate.

10. See Tenney J, of the U.S District Court of New York in *Georgia-Pacific Corp. v. U.S. Plywood Corp.*, 318 F.Supp. 1116 (1970). See further Roy J. Epstein, “Modeling Patent Damages: Rigorous and Defensible Calculations”, http://www.royepstein.com/epstein_aipla_2003_article_website.pdf and Roy J. Epstein and Alan J. Marcus, “Economic Analysis of the Reasonable Royalty: Simplification and Extension of the Georgia-Pacific Factors”, http://www.royepstein.com/epstein-marcus_jptos.pdf.

4. OVERVIEW OF A LICENSING AGREEMENT

Every license agreement is unique, reflecting the particular needs and expectations of the licensor and licensee. An infinite variety of agreements are possible, limited only by the needs of the parties and by the parameters of the relevant laws and regulations. However, certain issues are fundamental to the success of an agreement and remain common to most licensing agreements. Such issues are, therefore, useful starting points in preparing for a future negotiation.

A license agreement reflects certain fundamental concepts. First, it is the outcome of a business strategy and is a business relationship. Both the licensor and licensee must carefully consider whether entering into one or more licensing agreements fits into the business plan of the company, whether the expected revenues would be sufficient to justify the costs involved in engaging in licensing activity and whether the financial terms make sense to both parties. These factors may seem obvious but they are well worth mentioning. Accordingly, it is important that the parties' objectives are clearly understood and are complementary, and there is a recognition of the mutual need to ensure that the arrangement is successful. This will be assisted by an agreement which appropriately and equitably addresses the main elements or key issues.

Secondly, a license agreement is a contract. This means that the legal requirements for a binding and enforceable contract are necessary. These include that the parties have the legal capacity and the intention to enter into a contract, that there is offer and acceptance and that there is valid consideration, such as a payment on signing.

Thirdly, the feature that distinguishes a license agreement from other agreements or contracts is that the subject matter is intellectual property, which the licensor grants the licensee the right to use. Therefore, without intellectual property there is no technology licensing. There may be other important related issues covered either in the same agreement or in a separate one, such as development, consulting and training, investment, manufacturing, sales and so on.

There could be situations where both parties own intellectual property of interest to the other and have the legal right to prohibit the other from using it. In such a case, they would enter into a cross license agreement through which they would license each other the right to use and exploit their respective intellectual properties. Cross licensing is also used to enable enterprises to settle intellectual property disputes. There may or may not be royalty payments, depending on the value attributed to the intellectual property owned by each party.

Further, a licensee may find himself in a situation where he is unable to effectively use the licensed technology without access to other technologies owned by another. It is also possible that to successfully compete in the market he has to conform to certain *de facto* or *de jure* standards and the only way to do so in a cost-effective manner is by the application of certain technologies which are proprietary. In these situations, the licensee is obliged to obtain the right to use the technology(ies) from the owner of the intellectual property right through a licensing agreement, which may be on a royalty-free basis or negotiated on the basis of fair, reasonable and non-discriminatory terms.¹¹

Many license agreements involve a combination of one or more types of intellectual property rights. For example, a license of patent rights supported by manufacturing know-how is often called a “patent and know-how license agreement.” A license may include the right to use a trademark along with rights to make, use, sell, distribute and/or import a patented invention. A license may not mention a specific patent by number, but rather provide the specifications of a product and grant all intellectual property rights necessary to manufacture and sell such a product. In sum, the categories cannot be too rigid, and an agreement can include additional rights such as the carrying out of further research or development or the provision of technical assistance.

11. See further “Standards, Intellectual Property Rights (IPRs) and Standards-setting Process”, at http://www.wipo.int/sme/en/documents/ip_standards.htm

SUBJECT MATTER

The subject matter of a license agreement may include creations¹² such as inventions, confidential information, the creativity expressed in novels, plays, movies, music, the names of goods and services, business identifiers, etc. These can be owned and protected under intellectual property laws, which, to reiterate, include patents, utility models, trade secrets, trademarks, geographical indications, industrial designs, topographies of integrated circuits and copyright, as well as those that protect against certain types of unfair competition.

The subject matter is the first main section of the license agreement and it will have an important influence on the contents of the agreement. Thus, in a license agreement involving computer software there are likely to be clauses specifying the permitted use or application and requiring confidentiality to be maintained. In a trademark license agreement, particular attention should be paid to controlling the proper use of the trademark in advertising and marketing, and to maintaining the quality of the product or service bearing the trademark. So, trademark license permits the licensor to have access to samples, to inspect and the like. A common pitfall in license agreements is for the licensee to neglect to obtain all of the rights that are needed in order to utilize the technology. For example, the would-be licensee might neglect to obtain a license to both the patent and copyright subject matter in a technology. Or a licensee may only obtain a license to a patent or group of patents, without obtaining a license to know-how and a related consulting and training agreement.

Another pitfall is the failure to clearly identify the subject matter of the license. For example, providing a license to the "XXX Technology" without quoting the patent number or attaching the patent specification giving a detailed description. The parties should clarify whether the license is to use software, documentation, a drug formula, a protocol, a text, a musical score, etc. Similarly, the licensee must clarify whether the

12. Recall that hybrid patent license and bailment agreements exist for the transfer of tangible as well as intangible property. See fn 4.

technology that is to be licensed (the intellectual property in the technology) is complete or only in a state of development. If it is in a state of development, it will be important to clarify who will be responsible for its further development which, while not truly an issue of intellectual property, is an issue of practical importance. Many of these issues could be effectively dealt with in a definitions section which clearly defines all the relevant terms. Trade secrets could also be appropriately listed here.

As the subject matter of a license agreement often includes confidential information as well as inventions, as much attention as is devoted to the licensing of patents should also be devoted to such confidential information, including know-how and licensed trade secrets. In this connection, it is important to include in the agreement one or more clauses superseding the confidentiality agreement entered into prior to the negotiations. Such clause(s) would, *inter alia*, take into account the following:

- (a) define what is meant by confidential information. Such a definition should, preferably, include not only that which is disclosed to the recipient but other information which it may receive or be made aware of as a consequence to the agreement;
- (b) ensure that the licensee has or undertaken to put in place procedures for restricting the use of the information for the purposes as specified in the agreement and safeguarding it against disclosure. This may also include the possibility of verifying or auditing such procedures by the licensor or his authorized representative;
- (c) provide for liability in the case of accidental or negligent disclosure of the information to third parties who are not subject to the provisions of the license agreement and who are not otherwise informed of the confidentiality of such information;
- (d) spell out the exceptions to the obligation, such as if the information is publicly available, that is, it is already known or has become known to the recipient in a legitimate manner or if it had been independently developed by the recipient;
- (e) clarify as to how long these provisions will continue after the termination of the agreement and specify when the information should either be returned or destroyed.

Example¹³

Definition - Confidential Information shall include all data, materials, products, technology, computer programs, specifications, manuals, business plans, software, marketing plans, financial information, and other information disclosed or submitted orally, in writing or by any other media to licensee by licensor. Confidential Information disclosed orally shall be identified as such within five (5) days of disclosure.

- 1.1 with regard to Confidential Information received from the Licensor regarding this invention, the licensee agrees:
 - i. not to use the Confidential Information except for the sole purpose of performing under the Agreement;
 - ii. to safeguard the Confidential Information against disclosure to others with the same degree of care as it exercises with its own information of a similar nature;
 - iii. not to disclose the Confidential Information to others (except to its employees, agents or consultants who are bound to the Licensee by a like obligation of confidentiality) without the express written permission of the Licensor, except that Licensee is not prevented from using or disclosing any of the Confidential Information that:
 - (a) the licensee can demonstrate by written records was previously known to it;
 - (b) is now, or becomes in the future, public knowledge other than through acts or omissions of Licensee; or
 - (c) is lawfully obtained by the Licensee from sources independent of the Licensor; and
 - iv. that the secrecy obligations of the Licensee with respect to the Confidential Information will continue for a period ending five (5) years from the termination date of this Agreement.

EXTENT OF RIGHTS

The second main section of a license agreement relates to the extent of the licensed rights. This refers to the scope of the right being licensed, whether the license is exclusive, sole or non-exclusive, and the geographic territory for which the license is granted. The scope might also include improvements made to the technology during the license and will include the duration of the agreement.

13. These clauses and those that follow in this Manual are NOT to be used without review and advice of legal counsel. They embody and illustrate many of the principles discussed in this Manual, and should be used by negotiators to familiarize themselves with such clauses and to facilitate their drafting in a future licensing negotiation.

The nature of the rights being licensed depends on the subject matter. For a patent, this would normally be the right to make, use and sell a patented product or use a patented process. There may, however, be circumstances where it would not be appropriate, for example, to grant the right to sell, though this would be a very limited license as the licensee would not be able to receive a commercial benefit from the license. In the case of a copyright license it may also include the right to reproduce, display, modify and distribute. Some licenses permit the licensee to “sub-license” some or all of the rights conferred in the license, thus permitting the licensee to go into the business himself of licensing the technology. The license must clarify in its “scope” section, what rights are given. For example, a short term license that does not permit the licensee to modify a design, but only to make it and sell it in the countries of the European Union, is more limited than a perpetual and irrevocable license that permits the licensee to make, use, modify, enhance, copy, reproduce, distribute, display, export, import, and sub-license all of the above rights to others worldwide, as well as the right to use the associated trademark in connection therewith. Such a license comes close to being a sale (assignment) of ownership in the intellectual property and the technology it underlies.

The rights might also be restricted according to a defined application or product. Thus, the licensed “field of use” for a vaccine might be the treatment of cancer, and there might be other licensees with rights for hepatitis and other diseases.

Example

- 1.1 Subject to the limitations set forth in this Agreement, the Licensor grants to the Licensee a worldwide license under Patent Rights to make, have made, use, sell, offer to sell and import Licensed Products and to practice Licensed Methods.
- 1.2 Except as otherwise provided in this Agreement, the license granted in Paragraph 1.1 is exclusive for the life of the Agreement.
- 1.3 The license granted in Paragraphs 1.1 and 1.2 is subject to all the applicable provisions of any license to the United States Government executed by the Licensor and is subject to the overriding obligations to the U.S. Government under 35 U.S.C. 200-212 and applicable governmental implementing regulations.

- 1.4 The licenses granted in Paragraphs 1.1 and 1.2 are limited to methods and products that are within the Field of Use. For other methods and products, the Licensee has no license under this Agreement.
- 1.5 The Licensor reserves the right to use the Invention and associated technology for educational and research purposes.

Exclusive, Sole or Non-exclusive

In a particular territory, the license may be exclusive, sole or non-exclusive.

A non-exclusive license, where the licensee is one of several licensees with whom the licensor has entered into agreements for the use and exploitation of the technology, is the preferred option of most licensors. By spreading the risks and rewards to several licensees, the licensor does not depend on the success of one licensee. He can maintain a better control over the technology and, by virtue of the fact that several licensees are using and exploiting the technology in several markets and perhaps in a variety of products, give the technology a chance to further evolve and develop. However, in the case of early stage technologies which call for a significant amount of additional investment from the licensee, most potential licensees would seek exclusivity, at least in certain territories.

An exclusive license usually describes the situation where the rights granted to the licensee even exclude the rights of the licensor in the territory. A sole license usually describes the situation where the licensor as well as the licensee can use the technology in the territory, but no one else can. This distinction can be blurred in practice and the term exclusive is sometimes used to mean what is really a sole license. In any event, under both types of license, the licensor is not permitted to grant other licenses (at least in the territory in which the license is expressed to be exclusive or sole). In that territory, the licensor is reliant on one licensee. Accordingly, it is important to ensure that the agreement contains appropriate incentives and/or penalties to protect the licensor in the event of non-performance by the licensee. These might include the payment of an annual minimum royalty. If the licensee does not make the required payment, then the penalties might be termination of the license or conversion of the exclusive license to a non-exclusive license.

If the license covers more than one territory, it may be exclusive in one while non-exclusive in another. The exclusivity may be limited, for example, to a field of use or period of time or linked to the achievement of milestones.

Example 1 - Exclusive license

Licensor hereby grants to Licensee, subject to the terms and conditions of this Agreement, an exclusive worldwide license under the Licensed Patents and Know How, to manufacture, use and sell Licensed Products for any and all uses.

Example 2 - Exclusive license to become non-exclusive after five years

Licensor herewith grants to Licensee an exclusive license for the manufacture, use and sale of the Licensed Products.

The License will have an exclusive character during the first five years starting from the date of this Agreement. At the expiry of this time-period, and for the same territory, the License will be non-exclusive.

Example 3 - Non-exclusive license

Licensor hereby grants and Licensee hereby accepts a non-exclusive license in each country of the Licensed Territory under the Licensed Patents to produce, have produced, to manufacture, have manufactured for it, to use and or sell Licensed Products.

Most Favored Licensee

Where the license is non exclusive, the licensee may wish to include in the agreement a most favored licensee clause which in effect ensures that in the event that the licensor grants another licensee terms that are more favorable, then, by virtue of this clause, the present licensee would be entitled to terms as favorable as had been granted to the other licensee.¹⁴

14. In exercising its rights to the terms granted to the "most favored licensee" the present licensee is obliged to accept all the terms so granted and is not at liberty to select the terms that it finds favorable and reject those that it does not. In other words, it is all of the terms or nothing.

Example 1

Licensor agrees that it will not issue any license granting the right to sell Licensed Products covered by the Patents to the general public, to any person, firm or corporation under terms and conditions more favorable than those granted to Licensee hereunder without giving Licensee the benefit thereof as of the date on which such more favorable terms and conditions shall become effective. In the event that Licensor enters into any such more favorable license, Licensor will promptly notify Licensee to that effect and offer Licensee a reasonable opportunity to accept all such terms and conditions.

Example 2

If an agreement is concluded by the Licensor with any third person in [specified country (countries)] on more favorable terms and conditions than those of [this Agreement] [the Articles on royalty rates], the Licensee shall be entitled to have the terms and conditions of [this Agreement] [the Articles on royalty rates] modified as of the earlier date on which such other person conducts operations under such favorable terms and conditions to the same extent as those granted to such third person.

*Territory*¹⁵

The extent of the license also refers to the geographic territory. For example, worldwide rights could be granted, or the rights could be for specific countries or even specific parts of countries (such as a state or region of a country). What is appropriate will be influenced by what the licensor is able to offer in terms of rights and what the licensee is able to take advantage of in a particular territory or region. It is quite common for a licensor to operate in its local market while licensing companies active in various foreign markets to handle those markets. In this way the licensor is able to effectively penetrate foreign markets.

15. Territorial restrictions, which have been instituted to produce an anti-competitive effect, have run foul of the U.S and European Union anti-competitive laws. It is, therefore, prudent for parties to obtain a legal opinion when attempting to confine the activities, especially sales, by one party to a relatively limited geographical area. Territorial limitations based on a valid business purpose can be imposed, if appropriately drafted.

Example 1

The Territory is the Federal Republic of Germany. Sales to France are permissible, unless and until Licensor has granted a License in France and has so informed the Licensee by registered mail with receipt. Licensee does not have the right to sell Licensed Products produced under the Patent Rights to other countries. In each case of a violation of this clause, Licensee is obligated to pay three times the License Fee to the Licensor.

Example 2

The Licensed Territory shall be the area of the full Member States of the European Union, as that organization is, at the date of signing of this Agreement, constituted.

Sub-license

The licensee, particularly if the licensee has an exclusive license,¹⁶ may wish to have the right to grant sub-licenses in its territory. If so, this needs to be specifically negotiated and stated in the agreement. It should also be stated if the licensor's prior written approval is required for the granting of any sub-licenses, the choice of sub-licensee and the conditions upon which such sub-licenses may be granted; for example, the extent to which the terms of the sub-license should accord with those of the head license agreement. An additional clause should state whether or not the sub-license comes to an end when the head license is terminated or expires for any reason.

Example

- (a) Licensee shall have the exclusive right under the Licensed Patents to grant sub-licenses to others at royalty rates not less than those required to be paid in Article XYZ of this Agreement.
- (b) In respect of sub-licenses granted by Licensee under this Article, Licensee shall pay to Licensor twenty (20) percent of all revenue received in compensation for the sub-license, whether this takes the form of lump sums or royalties paid or any compensation in value or rebates in return for the sub-license.
- (c) Termination under any of the provisions of Article ABC of the License granted to Licensee in this Agreement shall terminate all sub-licenses that have been granted by Licensee, provided that any sub-licensee

16. Non-exclusive licensees are generally not granted the right to grant sub-licenses since a potential sub-licensee could seek a license directly from the licensor.

may elect to continue its sub-license by advising Licensor in writing, within sixty (60) days of the sub-licensee's receipt of written notice of such termination, of its election, and of its agreement to assume in respect to Licensor all the obligations (including obligations for payment) contained in its sub-licensing agreement with Licensee. Any sub-license granted by Licensee shall contain provisions corresponding to those of this paragraph respecting termination and the conditions of continuance of sub-licenses.

- (d) The granting by Licensee of sub-licenses under the Licensed Patents shall be at the discretion of Licensee, and Licensee shall have the sole power to determine whether or not to grant sub-licenses, the identity of sub-licensees, and, subject to paragraphs (a) and (c) of this Article, the royalty rates and terms and conditions of such sub-licenses.

Improvements

When dealing with improvements, also known as versions, enhancements, and new models, it is important to define what is an improvement and, therefore, covered by the license, and what is a new technology or new intellectual property. The latter case, depending on the national law,¹⁷ may necessitate a new license agreement.

Improvements to the licensed technology are not likely to be a major issue where the licensor is in successful commercial production. Where, however, the licensor and/or the licensee is involved in ongoing research and development, or the licensed technology is at an early stage of development, it is likely that improvements will be made to the process or product during the term of the license agreement.

This is a particularly important issue if the improvements are likely to be patentable or otherwise protectable. In this event, the licensor will want, if not require, the right to use any such improvements developed by the licensee.¹⁸ This right might extend to the licensor being able to grant a sub-license to other licensees in other territories and may involve the licensor using the improvements for other

17. In the U.S.A, if the licensee participated in the improvement enough to qualify as a named inventor he will have the right of use regardless of a license. See 35 U.S.C. Section 262.

18. Obliging a licensee to grant back improvements to a licensor on an exclusive basis may be considered anti-competitive. See for European Community, fn 23.

product applications. Obtaining these rights may mean there will need to be an adjustment to the financial arrangements. In addition, consideration will need to be given as to whether the licensee will have access to any subsequent improvements made by the licensor. This could occur automatically, or the agreement could provide that there would be an option which would involve further negotiations when details of the improvements are known.

A possible arrangement reflecting some of the above is that each party shall keep the other informed of, and shall have the right to use on a royalty-free basis, all improvements made to the licensed technology, and the licensor shall have the right to sub-license the licensee's improvements to its other licensees outside the territory. Or the improvements may be subject to an additional royalty to be fixed in advance, although this is often difficult to anticipate.

Example

(a) Changes and Improvements by Licensee:

Modifications to the Licensed Product are only permissible after written approval by Licensor.

All Improvements of the Licensed Product shall be reported by Licensee to the Licensor. If the Licensor has participated in the Improvement, Licensor has the right to be named as a joint inventor, and to exploit and utilize the Improvement by taking a license thereunder. The conditions are to be negotiated by the parties in good faith. The term Improvements shall mean those advances or developments which can be directly used and applied in relation to the Licensed Product and which are eligible for patent protection.

(b) Changes and Improvements by Licensor:

Licensor shall inform the Licensee of all Improvements to the Licensed Product. This provision is applicable also for Improvements for which a patent application is filed. The Licensee has the right to obtain a License for such Improvements in accordance with the conditions of this Agreement.

Technical Assistance

Depending on the kind of technology being transferred, there is often an agreement to provide the licensee with technical assistance in the form of documentation, data and expertise.

Term

The term or duration of the license agreement can be influenced by the subject matter of the rights being licensed. Thus, a patent license could end on the expiration of the last to expire of the licensed patents. A know-how or trademark agreement might be for five years, extended automatically for the same period, unless one of the parties gave prior written notice of termination. The term of a technology license including rights to patents, copyright, trademarks, and industrial designs will depend on the market and revenue estimations of the parties. The licensor may also wish to limit the term in order to assess the business efficacy of the licensee. The licensee may wish to extend the term if it is investing heavily in infrastructure necessary for exploitation of the intellectual property (e.g., a factory or a distribution channel). The only rule about the term of a license is that this depends entirely on the business needs of the parties and many tailored and negotiated outcomes are possible.

COMMERCIAL AND FINANCIAL CONSIDERATIONS

An important factor in commercial and financial considerations is the valuation of the technology. This was addressed in a previous section. Here we consider the various types of payment which are applied in licensing agreements. The parties will seek to arrive at a payment structure that reflects the nature and circumstances of the agreement and the terms and conditions agreed upon.¹⁹

19. Some factors that influence the setting of royalty rates are the strength and scope of intellectual property rights, territorial extent of rights, exclusivity of rights, level of innovation, durability of the technology, degree of competition/availability of other technologies, inherent risk, strategic need, portfolio fit, stage of development, etc., see "Royalty Rates: Current Issues and Trends", <http://www.medius-associates.com/Resources/Royalty%20Article.pdf>

In addition, this section will consider the issue of inflation, as well as financial administration, which covers the licensee's accounts and records, and matters of currency and taxation. It will also cover infringement and product liability.

Payments to the licensor for the acquisition and use of technology are usually classified as lump sums and royalties, and many agreements contain both types of payment.

Lump Sums

Lump sums are payable on the happening of a particular event. There may be one sum only, payable on signing the agreement. If there were no further payments, this would be considered a fully-paid-up license. On the other hand, there could be a series of lump sums, payable on the occurrence of specific events, which might be time-based, such as on the first or second anniversary of the signing of the agreement. Events can also be performance-based, such as on the disclosure of confidential information or on the commencement of commercial production. In the pharmaceutical industry, these "milestone" events could be the commencement of Phase I, II, and/or III clinical trials and the granting of regulatory approval. An event could also be the exercise of a right or option such as the licensee extending the license to additional geographical territories or fields of use.

Time-based payments are certain in that the amounts are known and agreed, and they are risk-free in that they will be paid when the specified period has elapsed. No further action is required by the licensee or the licensor.

Performance-based payments, on the other hand, depend on the occurring of certain events, such as the first commercial sale. As the payments are not made if the event in question does not occur, it is important to clearly define events such as first commercial sale.

This spreading, or delaying, of payments means that the licensee's financial risk is reduced until the technology's commercial, or

technical, risk is reduced. This will be of significant benefit to the licensee, especially where the technology is embryonic, rather than fully developed and ready to be commercialized.

*Royalties*²⁰

Royalties are regular payments to the licensor, which reflect the use of the technology by the licensee. As they link use with a monetary amount they can be a good reflection of the value of the technology to the licensee and, accordingly, royalties are the most usual type of payment in license agreements.

Royalties have two key components: the royalty base and the royalty rate.

The *royalty base* could be the cost of manufacturing or the profit from selling the licensed products. These are not often used. This is mainly because the licensee will usually consider this information to be competitor-sensitive and highly confidential and, in any event, the figures will vary according to accounting treatments and so may cause unnecessary disputes. Units or volume of production are also not often used, mainly because units produced does not mean units sold.

It thus follows that the most common royalty base is the licensee's sales.²¹ This could be the number of units of the licensed product sold with the licensee paying a fixed amount of, say, US\$1 per unit. All that needs to be ascertained is the number of units sold, and the royalty payable is determinable. If there is a dispute, it is easy to check the licensee's sales records. With this base, the licensor may require that the rate be reviewed from time-to-time, by the use of an appropriate indicator such as a domestic Consumer or Manufacturing Price Index.

20. www.royaltysource.com is a valuable database of actual licensing arrangements. The industries covered include automotive and manufacturing, biotechnology and pharmaceutical, chemicals, and computer hardware and software. The information provided, for a fee, usually includes details of the parties and the property licensed or sold, up-front payments and royalty rates, and information on key issues such as exclusivity and geographical territory.

21. See Lee R. Phillips, "Net Sales Definition is Central Issue", *Les Nouvelles*, March 1992, page 18.

Alternatively, the royalty base could be either the gross or the net sales receipts of the licensee. Gross receipts do not allow for deductions for such expenditures as packaging and freight. These are not relevant to the use of the technology, and so these and other unrelated items are usually excluded. Therefore, the base more often used is the licensee's net receipts.

Example

Net Sales

"Net Sales" shall mean the total of the cash and non-cash consideration received by Licensee, its Affiliates, and its sub-licensees for Licensed Products sold or delivered to independent, third-party customers in *bona fide* arms-length transactions, less the following deductions, to the extent such deductions are customary in the industry, are actually paid or allowed and are not later reduced (for example, by means of a full or partial rebate or credit of the deduction to Licensee, its Affiliates or sub-licensees):

- (i) amounts repaid or credited by reason of rejections or returns of Licensed Products;
- (ii) rebates, quantity discounts, trade discounts and cash discounts related solely to the sale of the Licensed Products actually paid or credited to customers;
- (iii) discounts which Licensee, its Affiliates and its sub-licensees are required by law to give under Medicaid, Medicare or other governmental special medical assistance programs;
- (iv) freight and insurance, as invoiced to and paid by customers;
- (v) U.S. sales, use and excise taxes and U.S. import duties paid, absorbed or allowed by Licensee, its Affiliates or its sub-licensees which are directly related to the sale of Licensed Products and invoiced to customers;
- (vi) amounts repaid or credited to customers by Licensee, its Affiliates and its sub-licensees because of retroactive price reductions in Licensed Products; and

Sales and transfers among Licensee, its Affiliates and its sub-licensees of Licensed Products intended for ultimate sale to third parties shall be disregarded for purposes of computing royalties.

This leads to the second key component of royalties, the *royalty rate*. It is important that the rate results in a good business proposition for both parties, and so negotiation of the royalty rate is fundamental to the success of the agreement. Too high a rate can mean the license is unprofitable for the licensee. Too low a rate can mean the licensor does not receive an

adequate return, which might lead to reduced expenditure on continuing research and development. Either might adversely affect the relationship between the parties and the success of the agreement.

Factors relevant to determining the royalty rate were addressed in the section on valuation of technology.

Royalty Variables

Chapter five emphasizes that generating variables or creating alternatives is an important part of reaching a “win-win” agreement, and variations to the royalty arrangements can provide important flexibility for both parties.

One possible variable is that the royalty rate reduces as the volume increases or time passes. Thus, a royalty rate of 10% might reduce to 7.5% after the sale of one million units, then to 5% after five million units. This might be on an annual or a cumulative basis. The reverse is also possible, with the royalty rate increasing as the volume increases. The first approach has the objective of encouraging the licensee to increase production and hence the royalties payable to the licensor. The reverse approach imposes lower royalty costs on the licensee at the beginning while the technology is being introduced and sales are low and increases them as market share is gained.²²

Another possible variable is that the licensee is required to pay the licensor an annual minimum royalty. Thus, the sum of US\$50,000 might be payable for year 2 of the license, increasing to US\$75,000 for year 3 and US\$100,000 for each year thereafter. This is particularly appropriate where the license is exclusive and the licensor needs to ensure that minimum royalties are received. If they are not, the licensor needs to be free to work with another partner so that his technology and intellectual property rights are not wasted by poor

22. See on positively and negatively correlated royalties Crispin Marsh, Managing Director, SCP Technology and Growth PTY Ltd., “Structuring Royalty Payments to Mutual Advantage”, <http://www.scp.com.au/publications/licensing/mutual.shtml>

exploitation. In some jurisdictions, the ability to grant exclusive licenses may be constrained by law because of the perceived risk that a single licensee will have too much power over the licensor and insufficient motivation to exploit the technology thus risking anti-competitive markets. Where a license is non-exclusive, the licensor has other alternatives and, in particular, is able to license other parties in the territory.

The reverse is also possible, and instead of there being a continuing annual minimum royalty, the license can become “paid up” or royalty-free. This would happen when an agreed event occurred, such as, for example, fifteen years of commercial production and/or total royalties paid reaching an agreed total sum, whichever event occurs first. This has the objective, after the licensor has been substantially rewarded, of ensuring that the licensee is rewarded as well.

Example 1

Financial Conditions

1. Licensee shall pay Licensor, during the term of this Agreement, a royalty of five percent (5%) on the Net Sales generated by Licensee, its Affiliates, Sub-licensees and/or Distributors in the Field.
2. Without prejudice to the provisions of section 1, if a Sub-licensee grants sub-licenses to independent third parties in the Field, allowing such third party to use the Licensed Technology in one or more Products, the Licensor, Licensee and the Sub-licensee have agreed that, in lieu of the obligation to pay royalties on the Net Sales generated by such Sub-licensee in accordance with the provisions of section 1, Licensor and Licensee will divide the consideration paid by such Sub-licensee by virtue of which Licensor shall receive twenty five percent (25%) of all payments (including any signing or milestone fees or royalties) payable by any such Sub-licensee on its Net Sales of Products. Payment of Licensor's share and the related reporting shall be submitted by Licensee in accordance with the quarterly royalty payments due in accordance with Article XX. No further royalties shall be due by Licensee to Licensor on the Net Sales value of any Product sold by such a Sub-licensee in the event that the parties have shared the royalties and milestone-payments as aforementioned.

Example 2

Financial Compensation

The consideration for the License granted in Article XX by Licensor to Licensee is determined as follows.

1. Milestone payments:

Amount in US\$	Event
100,000	On 1 st June 2005.
100,000	On 1 st September 2005.
50,000	Within two months after the successful completion of a trial batch of glazed coating applied to the LowBloodMed active compound delivered by a customer of Licensee.
50,000	Within two months after the successful completion by Licensee in its own production facilities of an industrial size batch of glazed coating applied to LowBloodMed active compound for use in human medicine.
100,000	Within two months after the start-up of a clinical trial program for phase 1 studies for the LowBloodMed active compound after treatment with the Invention.

2. Royalties

- (a) In consideration of the License hereby granted and of the Know-How and the technical assistance provided for in Article XX and subject to the remaining provisions of this Article, Licensee shall pay royalties in accordance with the following schedule on the worldwide Net Sales of Products covered by issued patent claims of Patent Rights during each Sales Year commencing with the second Sales Year. Licensee shall have no obligation under this Agreement to pay royalties on Net Sales during the first Sales Year. Commencing with the second Sales Year, the royalties payable for Net Sales during each Sales Year will be calculated as follows:

	Net Sales in US\$ Million	Royalty Rate
1	Less than 5	1.50 %
2	Between 5 and 10	1.75 %
3	Between 10 and 25	2.00 %
4	Between 25 and 50	2.50 %
5	Between 50 and 100	2.00 %
6	Over 100	1.50 %

- (b) The royalty rate applicable under this Article 2 shall however be reduced by twenty percent (20%) of such rates in the event of sales by one or more competitors of products which use a technology with comparable qualities regarding the stability of the chemical or pharmaceutical compound under conditions of tropical heat and humidity and which are competitive with one or more of the Products.
 - (c) In the event of issuance to a third party of a patent which claims a glazed neutral coating technology whereby, in the opinion of independent patent counsel who is acceptable to both parties, sale of Products would constitute an infringement of such claims, then, as of the date of such issuance, Licensee shall have no further obligation to pay royalties to Licensor under this Agreement.
 - (d) The royalty obligation under this Article 2 will last until expiration of the patents included in the Patent Rights and any Improvement.
3. Royalty payments shall be made in [currency] within thirty (30) days after the date Licensee will have obtained adequate information from the Commercial Partners with respect to the worldwide Net Sales of Products.
 4. All taxes assessed or imposed against or required to be withheld from royalty payments due by Licensee shall be deducted from amounts payable hereunder and shall be paid to appropriate fiscal or tax authorities on behalf of Licensor. Tax receipts received by Licensee evidencing payment of such taxes shall be forwarded promptly to Licensor. If tax receipts are not available from the tax authority, Licensee shall promptly obtain and send the best available evidence of payment.
 5. Payments due under this Agreement will be subject to interest from the day of their maturity at the rate of ten percent (10%) per annum. Payments due under this Agreement shall be made to Licensor by bank transfer to accounts duly notified by Licensor to Licensee.

Example 3

Duration and termination

The deferred payment obligation under Article XX will last until expiration of the longest running patent of the patents included in the Patent Portfolio and the Improvement Patents. Thereafter Licensee will have fully paid up the right to develop, make, have made, promote and sell Products worldwide without payment of further compensation to the Licensor.

Example 4

Royalties on Sales

1. Licensee shall pay to the Licensor or to its assigns, in accordance with the provisions of this present Article, a royalty in the amount of five percent (5%) of the Net Sales of each Product in the Territory as well as of any material value or reduction that Licensee may obtain from the purchasers of the Product in compensation for the Product.
2. Licensee's obligations to pay the royalties required by this present Article shall cease, in any particular country with respect to the Product:
 - (a) Upon the expiry of the patent protection for the Licensor's Patent Rights covering the Product in that country; or
 - (b) on the 15th anniversary of the First Sale of the Product in that country, and thereafter the Licence granted to Licensee shall be a paid-up royalty-free licence. Licensee shall notify the Licensor of the date of the First Sale of the Product by itself, its Affiliated Companies or its Sub-licensees in the Territory within thirty (30) days of that First Sale.
3. The royalties shall be due and payable within thirty (30) days of the end of March, June, September and December with respect to sales of the Product in the three (3) month periods ending on the last day of March, June, September and December. Such royalties shall be paid to the Licensor, to such bank account as the Licensor may designate, in [currency]. Licensee shall on payment of royalties submit a written statement summarizing on a country-by-country basis the accrual of the royalties in question together with a copy of the quotations of the main banker of Licensee on the currency rates in question.
4. Upon expiry of Licensee's obligation to pay royalties in respect of the Net Sales of the Product in any particular country, Licensee and its Affiliated Companies and its Sub-licensees shall have a perpetual, non-terminable paid-up licence to use the Know-How for that Product and to manufacture and market that Product in that particular country without further obligation to the Licensor.

Example 5

Financial Reporting Obligations

1. Within thirty (30) days of the end of each calendar quarter, Licensee shall send to the Licensor a statement disclosing the Net Sales of the Product for the just ended calendar quarter and the royalties due to the Licensor.
2. Licensee, if required so to do by any applicable tax law, may deduct any governmental withholding tax required to be deducted by it on payment of royalties hereunder or on payment of any of the development fees set out in Section X, but shall account to the relevant tax authorities for the sum so deducted and provide the Licensor with proof of such payment from such authorities. Licensee shall provide reasonable assistance to the Licensor in securing any benefits available to the Licensor with respect to governmental tax withholdings by any relevant law or double tax treaty.
3. Licensee shall keep at its registered office, and shall cause its Affiliated Companies and its Sub-Licensees to keep, full and accurate records of the sales of the Product for each country for purposes of compliance with its obligations hereunder. Such records shall be made available following the First Sale of the Product in the Territory, for inspection by the Licensor or an independent certified public or chartered accountant of the Licensor's choice during normal business hours after reasonable notice, up to two (2) years after the termination or expiration of this Agreement, and at the Licensor's expense. Such inspection shall not occur more often than once a year, except in the year following the discovery of any discrepancies, during which time quarterly inspections shall be permitted.

Inflation

The issue of inflation is effectively provided for where the royalty rate is expressed as a percentage of sales. Where, however, the royalty is a specific amount in a specified currency, it is usually reviewed regularly, say, annually or every two years, and adjusted, if the national law so permits, in accordance with an agreed consumer, manufacturing or other local index. Adjustments can also be made to lump sums payable on the happening of an event where, in particular, the occurrence of the event is distant and uncertain.

Financial Administration

The financial administration provisions of the license agreement include obligations on the licensee to keep accounts and records, to report the results and pay the consequent royalties. The royalty reports, which might be required once, twice, or four times a year, might need to be certified by the licensee's chief financial officer or auditor. In any event, the licensor usually reserves the right to inspect, or have a third party inspect, the licensee's accounts and records. This would be at the licensor's expense, unless, for instance, a discrepancy was discovered of more than a specified percentage and the agreement would then provide for the consequences triggered by this event.

Example

- 1.1 The Licensee shall keep accurate books and records showing all Licensed Products manufactured, used, and/or sold under the terms of this Agreement. Books and records must be preserved for at least five (5) years from the date of the royalty payment to which they pertain.
- 1.2 Books and records must be open to inspection by representatives or agents of the Licensor at reasonable times. The Licensor shall bear the fees and expenses of examination but if an error in royalties of more than five percent (5%) of the total royalties due for any year is discovered in any examination then Licensee shall bear the fees and expenses of that examination.

Financial administration also includes, where the parties are from different countries, the issues of currency and taxation. The currency of payment is not always the currency in which royalties arise. In these cases, it will be necessary to specify when the conversion is to be made and the rate to be used. The licensee should endeavor not to bear any exchange risk. Sometimes, it may be appropriate to agree on an exchange rate and state how fluctuations of more than a specified percentage are borne or shared.

There will necessarily be tax implications from a licensing agreement. The advice of a competent professional should be sought in evaluating the various options that may be available to each party in

deciding on the best way to manage this issue. For example, depending on whether the revenue is considered a capital gain or ordinary income, the tax implications would differ. When technology is licensed internationally, the licensor will usually require that all local taxes be borne and paid by the licensee. This means, in particular, sales and customs levies and duties. It does not usually include withholding tax. This is because withholding taxes are taxes on the licensor and, in most cases, will be creditable against the licensor's domestic income tax under a double tax avoidance agreement between the licensee's and the licensor's countries.

Infringement

When all or part of the technology has the benefit of patent or other intellectual property protection, it is important to provide for what will happen if there is any infringement. There are two situations where infringement could occur. The first is where a third party is using the protected technology but does not have a license. Here the licensee is facing competition and is likely to be at a financial disadvantage as the infringing competitor is not paying royalties. The licensee, particularly if he is a non-exclusive licensee, will expect the licensor to take steps to deal with the infringement. For instance, the licensor could negotiate with the third party so that it becomes a licensee. If this is not appropriate or is not successful, then the licensor may need to take legal action. Until proceedings have been instituted, the license agreement might provide that the licensee has the right to pay royalties into a separate bank (escrow) account, which are paid to the licensor when proceedings are instituted. If, however, proceedings are not instituted within, say, three years, then the accrued royalties could be returned to the licensee and, thereafter, the license could be royalty-free.

The second infringement situation is where a third party claims that the licensee is using technology in respect of which the third party has obtained protection. In this situation, the licensee may be faced with the prospect of not being able to continue to use all or some part of the licensed technology. Again the licensee will look to the licensor to provide support and assistance. However, the licensor might argue that

it is the licensee who has control over the application of the technology and that, in any event, before signing the agreement and commencing production, the licensee should have carried out the relevant searches, which would usually have revealed the presence of these pre-existing rights. Even so, the license agreement might provide that the parties would ascertain whether it is possible for the licensor to provide non-infringing technology. If not, the issue is whether the third party's patent is valid, and, if so, the licensee might require the licensor to obtain a license from the third party and a consequent adjustment to the financial arrangements between the licensor and the licensee.

Example 1

Licensee, as exclusive licensee, shall have power to institute and prosecute at its own expense suits for infringement of the Licensed Patents, and if required by law, Licensor will join as plaintiff in such suits. All expenses in such suits will be borne entirely by Licensee, and Licensee will pay to Licensor twenty five percent (25%) of any excess of recoveries over expenses in such suits.

Example 2

Licensee's right and obligation, respectively, to sue for infringement in an exclusive license.

1. While and as long as its License under this Agreement remains exclusive, Licensee is empowered -
 - (a) To bring suit in its own name, or if required by law, jointly with Licensor, at its own expense and on its own behalf, for infringement of the Licensed Patents;
 - (b) In any such suit to enjoin infringement and to collect for its use, damages, profits and awards of whatever nature recoverable for such infringement; and
 - (c) To settle any claim or suit for infringement of the Licensed Patents by granting the infringing party a sub-license under the provisions of Article X of this Agreement.
2. In the event Licensor shall bring to the attention of Licensee any infringement of the Licensed Patents, and Licensee shall not, within six months,
 - (a) Secure cessation of the infringement,
 - (b) Enter suit against the infringer, or
 - (c) Provide Licensor with evidence of the pendency of a *bona fide* negotiation for the acceptance by the infringer of a sub-license under the Licensed Patents, the License herein granted to Licensee shall forthwith become non-exclusive, and Licensor

shall thereafter have the right to sue for the infringement at Licensor's own expense, and to collect for its own use all damages, profits and awards of whatever nature recoverable for such infringement.

Product Liability

Product liability can have important financial consequences. The risk is that there might be injury or damage, to person or property, arising from a licensed product that is defective. The need is to identify the source of a potential defect and to assign responsibility accordingly. Thus, the licensee would usually be responsible for any manufacturing defects or for inadequate quality control. The licensor may supply components to the licensee, and, in this event, the licensor would usually be responsible for any defects in those components.

The party accepting responsibility would also provide the other party with an indemnity against any claims by a third party for loss or damage. The value of this indemnity is completely dependent on the financial resources of the party giving it. Thus, it is usual for the license agreement to require that product liability insurance indemnifying the licensor and licensee for an agreed value is obtained and maintained.

Example

1. *Indemnification by Licensor.* Licensor will indemnify and hold Licensee, its directors, officers, employees and agents, harmless against any and all liability, damage, loss, cost or expense (including reasonable attorney's fees) resulting from any third party claims made or suits brought against Licensee which arise from an act or failure to act by Licensor or Licensor's breach of its representations, warranties or agreements contained herein.

In addition, Licensor shall indemnify and hold Licensee, its directors, officers, employees and agents, harmless against any and all liability, damage, loss, cost or expense (including reasonable attorney's fees) resulting from any claims made or suits brought by a third party arising out of or relating to the Patent Portfolio, the Technology and/or the Data.

2. *Indemnification by Licensee.* Licensee will indemnify and hold Licensor, its directors, officers, employees and agents, harmless against any and all liability, damage, loss, cost or expense

(including reasonable attorney's fees) resulting from any third party claims made or suits brought against Licensor which arise from the breach of any of Licensee's representations, warranties or agreements contained herein, or which arise out of the development, manufacture, promotion, distribution, use, testing or sale, or other disposition of the Product, including, without limitation, any claims, express, implied or statutory, made as to the efficacy, safety or use to be made of the Product, and claims made by reason of any Product labeling or any packaging containing the Product. This obligation to indemnify shall not apply where the basis for the claim is the negligence or willful malfeasance of Licensor or Licensor's breach of its representations, warranties or agreements contained herein.

3. *Limitations on Indemnification Obligations.* Licensor and Licensee each agree that in no event shall either Party be liable to the other for indirect, incidental, special or consequential damages resulting from a default or breach of this agreement.
4. *Procedures.* The Party to be Indemnified shall notify the Indemnifying Party of any claim or action giving rise to a liability within twenty (20) days after receipt of knowledge of the claim. If notice is not given within twenty (20) days, the Indemnifying Party shall maintain its obligation to indemnify unless such failure to timely notify has a material, adverse effect on the outcome of the claim. The Indemnifying Party shall control the defense or settlement of the claim. However, the Indemnifying Party shall not settle or compromise any such claim or action in a manner that imposes any restrictions or obligations on the Party to be Indemnified without the indemnified Party's written consent. The Party to be Indemnified shall cooperate reasonably, assist and give all necessary authority and reasonably required information.

GENERAL CONSIDERATIONS

The last main section of a license agreement is intended to embrace the issues that have not been referred to in the above three categories. Thus, they include representations and warranties, specific licensor and licensee obligations, as well as issues of waiver, *force majeure*, dispute resolution and issues arising out of the expiration or termination of the license.

Representations and Warranties

Representations and warranties are statements or assurances about a matter or position relevant to the license agreement. One important

distinction is that a representation is not usually a term of the agreement, whereas a warranty is a contractual term, the breach of which could entitle the injured party to terminate the agreement and sue for damages.

While there are no restrictions on what might be the subject of a representation or warranty, typical examples include:

- the licensor owns the technology and has the right and authority to grant the license;
- that the licensed material (e.g. text, software, and/or documentation) is original and has not been copied;
- to the best of the licensor's knowledge and belief, the licensed patents are valid and are not being infringed by any third party.

The first two examples should be unqualified. However, with respect to the third example, given the difficulty of being absolutely certain that a patent is valid, it is reasonable for the licensor, having exercised due diligence to ensure that the patents are valid, to qualify his warranty that the licensed patents are valid to the best of his knowledge.

Another example would be where the licensor represents or warrants that the technology will produce minimum quantities of the licensed product to a specified quality within a specified period. Whether or not this is reasonable will depend, for example, on whether or not the licensor is already in commercial production and/or is supplying the necessary production equipment and technical assistance.

Representations and warranties have the advantage of clarifying and confirming the parties' understanding of particular issues and this can be helpful and important. They are useful for allocating risk between the parties to the agreement. However, a representation or warranty is only as useful as the solvency and assets of the party that is making it. Also, limits contained in other parts of the agreement on the amount of damages that may be claimed (disclaimers) can take away the value of such assurances. (See related discussion of indemnities under 'product liability', which are similar.)

Example

Representations, Warranties and Covenants Made by Licensor

Licensor represents and warrants to Licensee that:

1. (a) Licensor has full contractual rights to grant exclusive licenses of the Patent Portfolio to Licensee.
(b) Licensor also has full contractual rights to grant a non-exclusive license to Licensee in the Field for all Improvements.
2. (a) None of the Patents in the said Patent Portfolio has lapsed by reason of abandonment or non-payment of annuities or will lapse within two months of the Effective Date.
(b) Issued patents included in the Patent Portfolio are at the Effective Date valid to the best of Licensor's knowledge, and subsisting free and clear of all liens, claims, security interests, licenses and encumbrances. No opposition was filed with respect to any of the patents during the period of opposition.
(c) The execution and performance of this Agreement by Licensor will not violate any provision of law, any order of any court or any agency of government, or the charter or bylaws or other internal regulations or decisions of the Licensor and will not violate or result in the acceleration of any material obligation under any agreement or instrument of any kind to which Licensor is a party or by which it is bound.
3. There are no material claims, actions, suits or proceedings pending, or to the knowledge of Licensor threatened against or affecting Licensor arising out of or relating to the Patent Portfolio.
4. Licensor represents that it has not received notice or has not been charged with infringement or violation of any adversely held patent, invention or trade secret relating to the Patent Portfolio. Licensor further represents that, at the date of this Agreement, it does not know of any information or inventions related to the Patent Portfolio that would render it obsolete or would substantially reduce its value to Licensee such that, had Licensee known of the information or inventions, before entering into this Agreement, it would not have done so.
5. Licensor acknowledges that Licensee shall assume no liabilities or obligations of Licensor whatsoever whether with respect to the Patent Portfolio or Licensor Improvements.
6. Licensor shall, after the Effective Date, at the request of Licensee and without further consideration, execute and deliver such further instruments and take such further actions as Licensee may reasonably request in order to enable it to exercise and protect its rights under this Agreement, or to comply with recordation in any jurisdiction where the Patent Portfolio or Improvements exist.

7. Licensor further covenants and agrees that it will, whenever requested and without cost, promptly communicate to Licensee or its representatives any facts known to it relating to the Patent Portfolio or the Improvements, testify in any interference or legal proceedings involving the same, and execute any additional papers that may be necessary to enable Licensee or its representatives or successors to secure full and complete protection for the same, in as far as such request, testimony or action relates directly to applications of the Patent Portfolio within the Field.

Licensor and Licensee Obligations

The licensor is expected to take, for example, in a patent and know-how agreement, all necessary action to transfer the technology and assist the licensee to commence commercial production. Similarly, the licensee is expected to successfully manufacture and market the licensed product in the territory. In practice, this is an area that could give rise to a lot of disputes. It is, therefore, important that the parties clearly identify all actions that are necessary to achieve these objectives, and they should be agreed and recorded in the license agreement. Some examples are referred to under Heads of Agreement in Annex II A.

Sometimes, there is an overall obligation on the licensee to use all reasonable efforts, or best efforts if the license is exclusive, to achieve the objectives of the license agreement and commercial success. This can be an ambiguous obligation, and it is better to specify particular actions, such as an obligation by the licensee to spend agreed amounts on research or marketing or other activities tailored to increase the likelihood of success. It is a bad practice to rely on best efforts clauses to resolve issues of responsibility that are the subject of a hard-to-resolve negotiation. These hard-to-resolve issues (e.g. how much will the licensee invest in the exploitation of the licensed technology) are often the issues that lead to later disputes and litigation.

Example

Licensee shall use, and shall cause its Sub-licensee to use, all commercially reasonable efforts to market, promote and sell the Royalty-Bearing Product in the Territory.

In case the Licensee causes no actual turnover of Products and thus no Net Sales of Product in the Territory after a period of four full years from the Effective Date, a sum of [amount] [currency] shall nevertheless be paid by Licensee to Licensor as a minimum lump-sum payment. Such payment shall be on an ongoing annual basis, after each year in which no turnover is caused, starting with the fourth unproductive year. Payment shall be made in the following month of January for as long as Licensee has not brought a Product to the market and until Licensee terminates this agreement under the terms of Article XX.

Waiver

A waiver clause in a license agreement means that a party does not lose its rights because it does not enforce those rights. Thus, if a licensor was entitled to give notice of termination due to non-payment of royalties, but overlooked or ignored the breach, the licensor could still give notice in respect of another breach of that obligation. The waiver clause in effect prevents the application of the legal concept of estoppel, i.e. the earlier tolerance or oversight does not prevent the licensor from subsequently enforcing its rights.

Example

No waiver by either party of any default of this Agreement may be deemed a waiver of any subsequent or similar default.

Force Majeure

A *force majeure* clause in a license agreement addresses intervening circumstances beyond the control of a party, which prevent that party from carrying out its obligations. War, strikes and fire are the types of occurrences envisaged, and the benefit of the clause is that the time to carry out an obligation may be delayed until the *force majeure* circumstance ceases or is removed.

*Anti-competitive Practices*²³

When entering into a licensing agreement it is important to keep in mind that if certain business practices are incorporated, the agreement may, depending on the national laws of the country or countries in question, be considered illegal if tantamount to being anti-competitive. Some examples of practices that may be considered unlawful depending on the particular circumstances of the agreement are obliging a licensee to accept certain products or services in addition to the proprietary technology (tie-in, bundling), prohibiting the licensee from dealing with certain enterprises, attempting to fix the prices of products incorporating the licensed technology, territorial restrictions, cross licensing and patent pooling.²⁴

Government Regulations

When considering entering into a licensing agreement with a foreign partner it is important to verify the existence of various government regulations that may affect it. For example, most countries would at least require the registration²⁵ of a licensing agreement with the relevant authorities in that country but there may, in addition, be an approval process that must be followed for engaging in that kind of activity in that country. In the licensor's own country there may be regulations that restrict or make conditional the dealing with certain technologies for security or other reasons.²⁶

23. See the recent European Community Technology Transfer Block Exemption Regulations (TTBER), "Commission Regulation (EC) No 772/2004 of 27 April 2004 on the application of Article 81(3) of the Treaty to categories of technology transfer agreements" and Kathleen R. Terry, "Antitrust and Technology Licensing", <http://www.autm.net/pubs/journal/95/ATL95.html>.

24. See further on patent pools Richard Ekenger, "The Rationale for Patent Pools and their Effect on Competition", [http://www.jur.lu.se/Internet/Biblioteket/Examensarbeten.nsf/0/30F926B40D44ACF5C1256D9E00447A5D/\\$File/xsmall.pdf](http://www.jur.lu.se/Internet/Biblioteket/Examensarbeten.nsf/0/30F926B40D44ACF5C1256D9E00447A5D/$File/xsmall.pdf).

25. See David J. Dykeman and Daniel W. Kopko, "Patent License Recordation in the United States and Foreign Countries", <http://www.palmerdodge.com/pdf/patentlicense.pdf>.

26. For example, see the Export of Goods, Transfer of Technology and Provision of Technical Assistance (Control) Order 2003 under the Export Control Act 2002 of the United Kingdom.

Example 1

Licensee shall notify the Licensor if it becomes aware that this Agreement is subject to any [country] government reporting or approval requirement. Licensee shall make all necessary filings and pay all costs including fees, penalties, and all other out-of-pocket costs associated with such reporting or approval process.

Example 2

Licensee shall observe all applicable [country] and foreign laws with respect to the transfer of Licensed Products and related technical data to foreign countries, including, without limitation, the International Traffic in Arms Regulations (ITAR) and the Export Administration Regulations. Neither party represents that a license to export shall not be required nor that, if required, it shall issue.

Disputes

When negotiating the license agreement, parties should be aware that disputes might arise and provide means for resolving them. Built-in flexibility for amendments should provide means for resolution at first resort. Failing which, mechanisms for dispute resolution must be provided for. When drafting dispute resolution clauses, parties can draw from several options. Traditionally, parties have often agreed to resolve disputes through litigation in a specified domestic court. Increasingly, however, parties opt for alternative dispute resolution (ADR) procedures, such as arbitration and mediation, or mediation followed by arbitration. The WIPO Arbitration and Mediation Center has developed model clauses which facilitate the submission of disputes to arbitration or mediation, or to a combination of both (<http://arbitrator.wipo.int/arbitration/contract-clauses/index.html>).

ADR procedures offer several advantages:

- *A single procedure.* Through ADR procedures, the parties can agree to resolve in a single procedure a dispute involving intellectual property rights that are protected in a number of different countries, thereby avoiding the expense and complexity of multi-jurisdictional litigation, and the risk of inconsistent results.

- *Party autonomy.* Because of its private nature, ADR procedures afford parties the opportunity to exercise greater control over the way their dispute is resolved than would be the case in court litigation. They can, for example, choose the applicable law, place and language of the proceedings as well as the procedural rules. In addition, the parties themselves may select the most appropriate decision-makers for their dispute, which will be particularly relevant where disputes relate to complex legal, technical or business issues.
- *Neutrality.* ADR procedures can be neutral to the law, language and institutional culture of the parties, thereby avoiding any home court advantage that one of the parties may enjoy in court-based litigation, where familiarity with the applicable law and local processes can offer significant strategic advantages.
- *Confidentiality.* ADR proceedings are private. Accordingly, the parties can agree to keep the proceedings and any results confidential. This allows them to focus on the merits of the dispute without concern about its public impact, and may be of special importance where commercial reputations and trade secrets are involved.
- *Finality and enforceability of arbitral awards.* Unlike court decisions, which can generally be contested through one or more rounds of litigation, arbitral awards are not normally subject to appeal. In addition, the United Nations Convention for the Recognition and Enforcement of Foreign Arbitral Awards of 1958 (the “New York Convention”) greatly facilitates the recognition and enforcement of arbitral awards in the more than 130 States, which are party to it.

There are, of course, circumstances in which court litigation is preferable to ADR. For example, ADR's consensual nature makes it less appropriate if one of the two parties is extremely uncooperative, which may occur in the context of an extra-contractual infringement

dispute. In addition, a court judgment will be preferable if, in order to clarify its rights, a party seeks to establish a public legal precedent rather than an award that is limited to the relationship between the parties. In any event, it is important that potential parties and their advisors are aware of their dispute resolution options in order to be able to choose the procedure that best fits their needs.

Example 1: Mediation

Any dispute, controversy or claim arising under, out of or relating to this contract and any subsequent amendments of this contract, including, without limitation, its formation, validity, binding effect, interpretation, performance, breach or termination, as well as non-contractual claims, shall be submitted to mediation in accordance with the WIPO Mediation Rules. The place of mediation shall be [specify place]. The language to be used in the mediation shall be [specify language].

Example 2: Arbitration

Any dispute, controversy or claim arising under, out of or relating to this contract and any subsequent amendments of this contract, including, without limitation, its formation, validity, binding effect, interpretation, performance, breach or termination, as well as non-contractual claims, shall be referred to and finally determined by arbitration in accordance with the WIPO Arbitration Rules. The arbitral tribunal shall consist of [three arbitrators][a sole arbitrator]. The place of arbitration shall be [specify place]. The language to be used in the arbitral proceedings shall be [specify language]. The dispute, controversy or claim shall be decided in accordance with the law of [specify jurisdiction].

Example 3: Expedited Arbitration

Any dispute, controversy or claim arising under, out of or relating to this contract and any subsequent amendments of this contract, including, without limitation, its formation, validity, binding effect, interpretation, performance, breach or termination, as well as non-contractual claims, shall be referred to and finally determined by arbitration in accordance with the WIPO Expedited Arbitration Rules. The place of arbitration shall be [specify place]. The language to be used in the arbitral proceedings shall be [specify language]. The dispute, controversy or claim shall be decided in accordance with the law of [specify jurisdiction].

Example 4: Mediation Followed, in the Absence of a Settlement, by Arbitration

Any dispute, controversy or claim arising under, out of or relating to this contract and any subsequent amendments of this contract, including, without limitation, its formation, validity, binding effect, interpretation, performance, breach or termination, as well as non-contractual claims, shall be submitted to mediation in accordance with the WIPO Mediation Rules. The place of mediation shall be [specify place]. The language to be used in the mediation shall be [specify language].

If, and to the extent that, any such dispute, controversy or claim has not been settled pursuant to the mediation within [60][90] days of the commencement of the mediation, it shall, upon the filing of a Request for Arbitration by either party, be referred to and finally determined by arbitration in accordance with the WIPO Arbitration Rules. Alternatively, if, before the expiration of the said period of [60][90] days, either party fails to participate or to continue to participate in the mediation, the dispute, controversy or claim shall, upon the filing of a Request for Arbitration by the other party, be referred to and finally determined by arbitration in accordance with the WIPO Arbitration Rules. The arbitral tribunal shall consist of [three arbitrators] [a sole arbitrator]. The place of arbitration shall be [specify place]. The language to be used in the arbitral proceedings shall be [specify language]. The dispute, controversy or claim referred to arbitration shall be decided in accordance with the law of [specify jurisdiction].

Implementing the Agreement

As has been emphasized throughout in this Manual, licensing implies a continuous relationship over a specified period of time between two parties working towards a mutually-rewarding outcome. To ensure that the relationship is rewarding to the parties it is important that they deliver on their respective obligations arising from the agreement. For example, for the licensor, there may be obligations to deliver, on a one-off basis or on a continuous basis, technical assistance to the licensee. The licensor will also be concerned about the maintenance of his intellectual property rights so that rights do not lapse or fall into abeyance, including, if trademark rights have been transferred, ensuring that the quality of the trademark is maintained. Trademark quality refers to proper trademark usage, based on trademark usage guidelines issued by the licensor and ensuring that the product conforms to required technical

specifications of the licensed technology. In addition, the licensor must concern himself with a variety of other issues, depending on the terms agreed upon, for the maintenance of the agreement. These will include maintaining detailed accounting for royalties received, auditing of licensee's accounts, developing the technology further, following agreed procedure in the case of improvements and defending the licensee against suits brought by third parties and suing third parties on behalf of the licensee.

Likewise, the licensee has, in connection with the primary obligation to make royalty payments, the responsibility to put in place stringent accounting procedures, institute a regular reporting mechanism and allow for the auditing of its accounts. It also has the obligation to follow agreed procedures in case of improvements and take agreed measures in the case of infringements and, if a trademark has been licensed, to maintain the quality of the trademark. Further, if products are being manufactured using licensed patents, the agreement would probably provide that they be marked accordingly or the licensor may wish to control and approve how the licensee marks a product based on the licensor's patent.²⁷

Example

The Licensee shall mark all Licensed Products made, used or sold under the terms of this Agreement, or their containers, in accordance with the applicable patent marking laws.

It is important that all of these obligations and how they may be implemented be clearly specified in sufficient detail in the agreement. They imply both for the licensor and licensee costs in terms of time spent and additional human resource requirements. However, they are indispensable for the survival, smooth running and sustainability of the agreement.

27. It would be useful to keep in mind that if the final product turns out to be of bad quality then, having marked the product as having used certain licensed patents, may be disadvantageous to the patent holder. However, if the product is a success and then is infringed by someone, having marked the product would mean that the infringer has had prior warning and, as such, the damages granted to the licensor could, in some jurisdictions, be punitive.

Expiration and Termination

License agreements come to an end in two ways. The first is where the term or period of the agreement expires because of the occurrence of an agreed event. For example, the term is ten years or until the last of the licensed patent lapses or expires.²⁸ When these events happen, the agreement automatically expires.

The second way is that the agreement is terminated by one party before the agreement has expired. The events that can give rise to a party having the right to terminate the agreement are usually set out in detail and relate to a failure to perform in some way and breach of a condition of the agreement. Some examples are failure to make payments when due, bankruptcy or insolvency. While the agreement could terminate automatically when one of these events happens, it is preferable that notice is given, with the agreement terminating if the default is not rectified by the other party within a specified time.

It is important to consider the rights and obligations of the parties after expiration or termination of the agreement. For example, where there is know-how or written confidential information and the agreement has been terminated by the licensor, will the licensee be required to cease using and return the know-how or such information. If so, how can that be done? Where an agreement expires it could provide that the licensee has the right to continue to use the know-how or confidential information: the licensee would now have a fully-paid-up license. One should consider whether any sub-licenses or other rights that have been granted to third parties might continue after termination. In addition, it is important to specify clauses that should continue even though the agreement has ended. Examples include maintaining confidentiality, continuing rights to use the other party's improvements, access to records, settlement of disputes and product liability obligations and indemnities. It may be that clauses that are specified to survive the agreement only do so for a particular period.

28. See further "How to Get Royalties After a Patent Has Expired" by Charles A. Weiss and Kenneth R. Corsello at www.kenyon.com/files/tbl_s47Details%5CFileUpload265%5C128%5CRoyalties.pdf

Example

1. Unless terminated earlier under the provisions that follow, this Agreement will be valid until the expiry of the last to expire Licensed Patent and, at that time, Licensee will have the right to continued use of all of the related confidential Know-How belonging to Licensor and will have fully paid up the right to develop, make, have made, promote and sell any Product within and outside the Territory without payment of further compensation to Licensor.
2. Licensee may terminate this Agreement at any time upon written notice to Licensor if in Licensee's sole judgement the application of Licensed Patent in the Field fails to perform, be it for technical, regulatory, scientific, political or economic reasons, including but not confined to war, revolution, civil disorder, natural calamities and other similar events.
3. Licensor may terminate this Agreement provided there exist reasonable grounds to believe the lack of diligence on the part of Licensee in developing, making or selling Product.
4. In case the Licensee were to become subject to a bankruptcy declaration or to the start of bankruptcy or similar proceedings or were to be put under receivership or under any equivalent national judicial measure, or under court control for purposes of avoiding bankruptcy or administrating the corporations that have stopped making payments or who have lost credit-worthiness, excluding however bankruptcy events that are quashed, removed or a bond posted within sixty (60) days in an amount at least 1½ times the amount claimed, then all rights given to Licensee under this Agreement shall revert unconditionally and immediately to Licensor and in as far as such is relevant, all time-delays and conditions in this Agreement are lapsed and all financial obligations of Licensee shall have matured and shall be immediately payable and shall carry interest as from the date that such bankruptcy occurs or similar procedure have started.
5. Upon termination under sections 2, 3 and 4, all rights granted under this Agreement to Licensee shall revert to Licensor, and Licensee shall as promptly as possible return to Licensor all written confidential information which belongs to Licensor, subject only to retention of one copy in its legal files to assure compliance with its obligations hereunder. As of the date of such termination, no party will have any further obligation or liability to the other pursuant to this Agreement. However, such termination will not relieve any party of any obligation or liability accruing prior to the date of such termination.

CONCLUDING COMMENTS

Many issues have been discussed. It is, however, not necessary that all of them be included in all license²⁹ agreements. Much will depend on the particular circumstances of each case. What is appropriate in an individual case will depend on the particular needs, expectations and circumstances of the particular alliance. Factors such as the significance and the stage of development of the technology, the type and level of protection, the potential risks, the size of the investment, the strategic objectives of the parties, and so on will certainly play a role in fashioning the agreement. Licensing brings together many disciplines including expertise in the particular technical area in question, legal (particularly, intellectual property rights) and financial. Once an agreement has been concluded it is but the first stage that has been concluded. The hard work and, hopefully, the rewarding part of implementation have just begun.³⁰

29. While the focus of this Manual is on licensing, it should not be overlooked that most of the above issues also arise in most other types of technology transfer agreements.

30. Unfortunately, agreements are not always rewarding and may fail for one reason or another. See further on how to prevent such failures, Mark Levy, "Patent Licensing Pitfalls", <http://131.238.53.103/plt/alip/1stalip/cle99lic-levy.html>, SCP Technology and Growth, "Licensing Pitfalls – When Agreements Fail", <http://scp.com.au/publications/licensing/pitfalls.shtml> and Todd Dickinson, "How to Avoid Licensing Dangers", www.managingip.com, November 2001, p 58.

5. NEGOTIATING GUIDELINES AND TIPS

You don't get the deal you deserve, you get the deal you negotiate.

Negotiating a technology licensing agreement is the art of reaching an agreement where the licensor grants and the licensee acquires the right to use the licensor's technology on specified terms and conditions. The objective is to set the basis for a mutually satisfactory and ultimately rewarding future relationship. That is, a "win-win" outcome as opposed to a "win-lose" outcome (which, in effect, is a "lose-lose" outcome). To achieve such a "win-win" outcome both the potential licensor and licensee must be mindful of the fact that each party has something of value that they will be bringing to the relationship. Understanding what that value is and understanding the needs and expectations of both parties in entering into such an agreement is the key to a successful negotiation.³¹

THE PROCESS OF NEGOTIATING A LICENSE AGREEMENT

The negotiation process involves four distinct phases: preparing, discussing, proposing and bargaining.

The Preparation Phase

This is probably the most important, in that it is almost impossible to recover from, or overcome, inadequate preparation. Preparation includes all that has been discussed thus far in this Manual. That is, both the licensor and licensee would have determined by this stage that for one reason or another a license agreement is in keeping with their respective business objectives. They would have identified each other as likely partners having the potential to complement, strengthen and fulfill each other's business aspirations.

31. See further, Alec and Munro, "Disciplined Negotiation: Worldwide", *Les Nouvelles*, December, 1997 and Fisher and Ury, "Getting To Yes", Penguin, 1991.

It is now time for both the potential licensor and licensee to prepare for the upcoming formal meeting between the parties. All the information gathered so far in the larger preparatory phase will now become relevant. To clarify and focus the discussions, the following considerations may be usefully followed:

- Having gone through a preliminary analysis of its business objectives and decided that a licensing agreement would further that objective, it is now time to clearly identify what one wants to achieve from the discussions or what would be considered a successful outcome. In other words, what is the goal and how can this goal be achieved.
- Similarly, what would the other party be expecting to achieve from the discussion and to what extent does it differ or overlap with what one wants to achieve.
- The lead negotiator would preferably be one who understands the overall business strategy. He or she would, ideally, be assisted by a team consisting of experts from the financial, legal and technical areas. Their respective roles and responsibilities must be clarified and each team member must understand the overall objective, the big picture, so that there is no sudden contradiction or compromise made by one member that had not been agreed to by the others.
- Prepare a summary of the key commercial issues to be covered in the license agreement and the position of the party on each such issue. This document is called a Heads of Agreement, or sometimes a Term Sheet, or a Proposed Basis of Agreement. It is also important, in respect of each issue, to establish the maximum (or best) position, and the minimum (or worst) position. Another advantage of the Heads of Agreement is that it can often be appropriate to actually table the Heads of Agreement so as to initiate or progress the negotiations. Issues can be negotiated more easily and rapidly with a Heads of Agreement of around two to five pages, as compared with a draft license agreement, which could be much longer. An outline Heads of Agreement is contained in Annex II A.

The distinction between the discussing, proposing, and bargaining phases is usually obvious, though it can be that the parties move so rapidly through these stages that the distinction becomes blurred. Even so, it is always important to be conscious of which phase of the negotiations you are at.



The Discussion Phase

This is usually characterized by the licensor promoting the merits and the opportunity offered by its technology, and the potential licensee reviewing documentation and information under a confidentiality agreement. The licensee may also set forth his views about the value of the license to his business and why he is interested. This conversation remains general.

The Proposing and Bargaining Phases

In the proposing phase, the parties are exploring the possible relationship and the principal commercial terms. “Why should we grant you an exclusive worldwide license?” Key questions are being asked, assumptions tested, strategic objectives established and boundaries identified. In the bargaining phase, the question might become, “If we grant you an exclusive worldwide license, then you have to double the sum payable on signing the agreement”, to which the licensee might respond “If we double the down-payment, then one half is to be credited against the future royalties payable to you on our sales of Licensed Products.” The Golden Guidelines of negotiation are coming into play, and here it is the *If....Then* Guideline, otherwise known as the *Never Give Unless You Get* Guideline. It is too easy for the inexperienced negotiator to agree to a proposal, and to then make a separate proposal – and be surprised when it is rejected. The negotiator has the power and the chance to explore and to link the issues and so achieve a better outcome (at least on these issues). Another Guideline that emerges from this interchange is the opportunities that can be created by *Generating Variables* or creating different options. A variety of different solutions are possible in solving a problem or in arriving at a mutually acceptable agreement. All of the key terms of the

agreement, including, for example, license exclusivity/geographical territories/scope of license/payment amounts and timing/royalties are variables, and a little imagination can create additional variables, all of which can be creatively managed so as to arrive at an outcome that makes the parties feel that they have achieved an agreement that meets their respective business objectives, which is a “win-win” outcome.

THE GOLDEN GUIDELINES OF NEGOTIATION

Guidelines are the principles that aim to provide the negotiator with a practical framework for the conduct of a negotiation. They are not rules, which if transgressed must mean the negotiation is at an end. Rather, the failure to follow or achieve a guideline is intended to alert the negotiator to the need to have an understanding of the current position and perhaps the need for additional or different actions.

We have already referred to the guideline of *generating variables* and of the *if.....then* guideline. Others include:

Aim for a “Win-Win” Outcome. This is absolutely fundamental. License agreements invariably involve long-term technical, commercial and personal relationships and, it follows, that for the arrangement to be successful all parties need to be satisfied with the agreement reached. A dissatisfied party will often go to extreme lengths to redress a perceived injustice and, when this happens, the grief, for one if not both parties, is likely to well exceed all the previous benefits. After all, an agreement is not inevitable and, in such a case, the “win-win” outcome would have been for the parties **not** to reach an agreement!

Establish the Maximum (or Best) Position, and the Minimum (or Worst) Position in Respect of Each Issue. This is part of preparing for the negotiation and identifying and ranking the issues of importance to oneself, as well as anticipating those likely to be important to the other. This does not automatically mean that, if in the negotiation a minimum position is not being achieved, the negotiator should discontinue negotiations. Rather, being a guideline and not a rule, it requires the negotiator to be satisfied that, in agreeing to a position

that is less than the minimum, there are good reasons. Perhaps new information has changed the minimum position which was established prior to the meeting. Or, on another issue the negotiator has achieved an outcome better than the maximum, and so overall and on balance the negotiator can accept a less than optimal outcome on this issue. Or this issue is not that important to the negotiator, and/or it can be justified because it is the last issue and overall agreement can now be reached.

Aim High, but Protect Your Credibility. This is relevant to the previous guideline, and reflects that it is possible to accept a lesser position whereas the converse (to increase an offer) is usually impossible. If the official price for a new Mercedes Benz is \$50,000 and a customer offers \$35,000, it would be only a moment before the sales person was talking to the next customer. It is all very well to aim high, but not so high that the offer is not realistic and, in fact, jeopardizes, if not destroys, the customer's credibility. Rather, the customer might agree to pay \$45,000, and then proceed to negotiate for the first year's services to be free, for the warranty to be extended by a year, for the radio/CD system to be upgraded, for a tow bar to be installed, and so on. In other words, *Generate Variables* to achieve a better deal.

Trade Variables That are Cheap for You but Valuable to the Other Party. This is the best outcome. The independent engineer's report on the second hand-Mercedes being purchased shows that repairs of up to \$10,000 may be necessary. The customer might offer to proceed with the purchase if the repairs are carried out and the garage might agree to do this because the mechanics have little work on hand and spare parts are few and are at wholesale prices. This is the best variable of all – it is valuable to one party but is cheap for the other party.

Finally, nothing is cast in stone. *Everything is Negotiable.*

To further illustrate the principles discussed above, a questionnaire can be found in Annex III, which demonstrates that we are often in situations in which we are negotiating, whether it is with our colleagues, family members or the local shopkeeper. Many of us may

be intuitively skillful negotiators with years of practice in day-to-day situations. In Annex IV are negotiating tips which would be helpful in putting those skills into practice in an actual licensing negotiation. They are succinct, self-explanatory, and worthy of study, as they will assist in understanding the importance and the power of negotiation - and assist both parties to a license agreement in getting the deal they deserve!



ANNEXES

I INTELLECTUAL PROPERTY RIGHTS³²

Intellectual property refers to creations of the mind: inventions, literary and artistic works, and symbols, names, and images used in commerce. It is divided into two categories: industrial property which includes patents for inventions, trademarks, industrial designs and geographical indications and copyright which includes literary works such as novels, poems and plays, films, musical works, artistic works such as drawings, paintings, photographs and sculptures, and architectural designs. Rights related to copyright include those of performing artists in their performances, producers of phonograms, and those of broadcasters in their radio and television programs.

While the intellectual property laws of most countries are moving towards greater harmonization, they remain national (or regional depending on whether a group of countries have agreed to such a regional intellectual property law) laws having effect only within the territorial boundaries of the country or the region, as the case may be. Therefore, an intellectual property right obtained within a jurisdiction is only valid in that jurisdiction.

Patents

A patent is an exclusive right granted for an invention, whether a product or a process, which must be industrially applicable (useful), be new (novel) and exhibit a sufficient "inventive step" (be non-obvious). A patent provides protection for the invention to the owner of the

32. Extracted from "What is Intellectual Property?" WIPO Publication Number 450 (E) ISBN 92-805-1155-4 except section on Trade Secrets which is extracted from "Secrets of Intellectual Property, A Guide for Small and Medium-Sized Exporters" published by the International Trade Centre and the World Intellectual Property Organization, Geneva 2004. Also refer to www.wipo.int/sme and, in particular, the publications "Making a Mark: An Introduction to Trademarks for Small and Medium-sized Enterprises", WIPO publication No. 900, "Looking Good: An Introduction to Industrial Designs for Small and Medium-sized Enterprises", WIPO publication No. 498 and "Creative Expression: An Introduction to Copyright for Small and Medium-sized Enterprises", WIPO publication No. 918, "Inventing the Future: An Introduction to Patents for Small and Medium-sized Enterprises", WIPO publication No. 917.

patent. The protection is granted for a limited period, generally 20 years from the filing date.

Patent protection means that the owner of a patent has the exclusive right to prevent others from making, using, offering for sale, selling or importing the invention. These patent rights are usually enforced in a court, which, in most systems, holds the authority to stop patent infringement. Conversely, a court can also declare a patent invalid upon a successful challenge by a third party.

A patent owner has the right to decide who may – or may not – use the patented invention for the period in which the invention is protected. The patent owner may give permission to, or license, other parties to use the invention on mutually agreed terms. The owner may also sell the right to the invention to someone else, who will then become the new owner of the patent. Once a patent expires, the protection ends, and an invention enters the public domain, that is, the owner no longer holds exclusive rights to the invention, which becomes available for commercial exploitation by others.

All patent owners are obliged, in return for patent protection, to publicly disclose information on their invention in order to enrich the total body of technical knowledge in the world. Such an ever-increasing body of public knowledge promotes further creativity and innovation in others. In this way, patents provide not only protection for the owner but valuable information and inspiration for future generations of researchers and inventors.

The first step in securing a patent is the filing of a patent application. The patent application generally contains the title of the invention, as well as an indication of its technical field; it must include the background and a description of the invention, in clear language and enough detail that an individual with an average understanding of the field could use or reproduce the invention. Such descriptions are usually accompanied by visual materials such as drawings, plans, or diagrams to better describe the invention. The application also contains various “claims”, that is, information which determines the extent of protection granted by the patent.

Trademarks

A trademark is a distinctive sign, which identifies certain goods or services as those produced or provided by a specific person or enterprise. The system helps consumers identify and purchase a product or service because its nature and quality, indicated by its unique trademark, meets their needs.

A trademark provides protection to the owner of the mark by ensuring the exclusive right to use it to identify goods or services, or to authorize another to use it in return for payment. The period of protection varies, but a trademark can be renewed indefinitely on payment of corresponding fees. Trademark protection is enforced by the courts, which in most systems have the authority to block trademark infringement.

Trademarks may be one or a combination of words, letters, and numerals. They may consist of drawings, symbols, three-dimensional signs such as the shape and packaging of goods, audible signs such as music or vocal sounds, fragrances, or colors used as distinguishing features. In addition to trademarks identifying the commercial source of goods or services, several other categories of marks exist. Collective marks are owned by an association whose members use them to identify themselves with a level of quality and other requirements set by the association. Examples of such associations would be those representing accountants, engineers, or architects. Certification marks are given for compliance with defined standards, but are not confined to any membership. They may be granted to anyone who can certify that the products involved meet certain established standards. The internationally accepted "ISO 9000" quality standards are an example of such widely recognized certifications.

Industrial Designs

An industrial design is the ornamental or aesthetic aspect of an article. The design may consist of three-dimensional features, such as the shape or surface of an article, or of two-dimensional features, such as

patterns, lines or color. Industrial designs are applied to a wide variety of products of industry and handicraft: from technical and medical instruments to watches, jewelry, and other luxury items; from house wares and electrical appliances to vehicles and architectural structures; from textile designs to leisure goods. To be protected under most national laws, an industrial design must be new or original and non-functional. This means that an industrial design is primarily of an aesthetic nature and any technical features of the article to which it is applied are not protected.

When an industrial design is protected, the owner – the person or entity that has registered the design – is assured an exclusive right against unauthorized copying or imitation of the design by third parties.

Trade Secrets

Broadly speaking, any confidential business information which provides an enterprise with a competitive edge can qualify as a trade secret. A trade secret may relate to technical matters, such as the composition or design of a product, a method of manufacture or the know-how³³ necessary to perform a particular operation. Common items that are protected as trade secrets include manufacturing processes, market research results, consumer profiles, lists of suppliers and clients, price lists, financial information, business plans, business strategies, advertising strategies, marketing plans, sales plans and methods, distribution methods, designs, drawings, architectural plans, blueprints and maps, etc.

While conditions vary from country to country, in order to qualify as a trade secret, some general standards exist. They are that the information must be confidential or secret. Information which is generally known or readily ascertainable is not protectable as a trade

33. Know-how may or may not be a trade secret. Know-how generally refers to a broader group of internal business knowledge and skills which would amount to a trade secret if the conditions for qualifying as a trade secret have been met.

secret. Even hard-to-learn information can lose its protected status if the owner does not take proper precautions to maintain its confidentiality or secrecy. The information must have commercial value because it is a secret and the holder of the information must have taken reasonable steps to keep it confidential or secret (e.g. through confidentiality or non-disclosure agreements with all those who have access to the secret information. Simply calling information a trade secret will not make it so).

The owner of a trade secret can prevent others from improperly acquiring, disclosing or using it. However, trade secret law does not give the right to stop people who acquire or use information in a legitimate way, that is, without using illegal means or violating agreements or state laws.

Unlike other forms of intellectual property such as patents, trademarks, and designs, maintaining trade secrecy is basically a do-it-yourself form of protection. Trade secret protection lasts for as long as the information is kept confidential. Once the relevant information is made public, trade secret protection ends.

Copyright and Related Rights

Copyright is the body of laws which grants authors, artists and other creators protection for their literary and artistic creations, which are generally referred to as "works." A closely-associated field of rights related to copyright is "related rights", which provides rights similar or identical to those of copyright, although sometimes more limited and of shorter duration. The beneficiaries of related rights are performers (such as actors and musicians) in their performances; producers of sound recordings (for example, cassette recordings and compact discs) in their recordings; and broadcasting organizations in their radio and television programs. Works covered by copyright include, but are not limited to: novels, poems, plays, reference works, newspapers, computer programs, databases, films, musical compositions, choreography, paintings, drawings, photographs, sculpture, architecture, advertisements, maps, and technical drawings.

The creators of works protected by copyright, and their heirs and successors (generally referred to as “rights holders”), have certain basic rights under copyright law. They hold the exclusive right to use or authorize others to use the work on agreed terms. The rights holder(s) of a work can prohibit or authorize: its reproduction in all forms, including printing and sound recording; its public performance and communication to the public; its broadcasting; its translation into other languages; and its adaptation, such as a novel into a screenplay for a film. Similar rights of, among others, fixation (recording) and reproduction are granted under related rights. Many types of works, etc., protected under the laws of copyright and related rights require mass distribution, communication, and financial investment for their successful dissemination (for example, publications, sound recordings, and films); hence, creators often transfer the rights to their works to companies best able to develop and market the works, in return for compensation, in the form of payments and/or royalties (compensation based on a percentage of revenues generated by the work).

The economic rights of copyright have a duration, as provided for in the relevant WIPO treaties, commencing upon the creation and fixation of the work, and lasting for not less than 50 years after the creator’s death. National laws may establish longer terms of protection. This term of protection enables both creators and their heirs and successors to benefit financially for a reasonable period of time. Related rights enjoy shorter terms, normally 50 years after the performance, recording or broadcast took place.

Copyright and the protection of performers also include moral rights, which are the right to claim authorship of a work, and the right to oppose changes to the work which could harm the creator’s reputation.

Copyright and related rights protection is obtained automatically without any need for registration or other formalities. However, many countries provide for a national system of optional registration and deposit of works; these systems facilitate, for example, questions involving disputes over ownership or creation, financing transactions, sales, assignments and transfers of rights. Many authors and



performers do not have the ability or the means to pursue the legal and administrative enforcement of copyright and related rights, especially given the increasingly worldwide use of literary, musical and performance rights. As a result, the establishment and enhancement of collective management organizations, or “societies”, is a growing and necessary trend in many countries. These societies can provide for their members the benefits of the organization’s administrative and legal expertise and efficiency in, for example, collecting, managing, and disbursing royalties gained from the national and international use of a member’s work or performance. Certain rights of producers of sound recordings and broadcasting organizations are sometimes managed collectively as well.

II A HEADS OF AGREEMENT

The Heads of Agreement (sometimes referred to as a Term Sheet or a Proposed Basis of Agreement) document is an outline of the intention of the parties concerning the terms of the proposed agreement and/or a summary of the key issues. It is a useful exercise for each party to the negotiation to prepare a Heads of Agreement document which will serve to clarify their own positions, expectations and needs. It will thus be an excellent basis for the negotiation. One version could be for internal use and the other made available to the other party.

It is important to keep in mind that, if the parties do not wish to be legally bound by the Heads of Agreement document, that it expressly state it in writing to avoid any confusion at a later stage. In order not to be constrained during the negotiation, it is better to expressly opt to be not bound by it. In the example provided, it is explicitly stated that the document will not bind the parties.

1. Parties
("Licensor") ("Licensee")
2. Subject Matter, Scope and Territory
The exclusive right, with the right to grant sub-licenses, to manufacture, use and sell under the Licensor's Patents, Know-How and Trademarks ("Product") in North America ("Territory").
3. Licensor's Obligations
 - (a) provide all relevant technology relating to the Product including drawings for the manufacture of dies for injection molding;
 - (b) provide quotation for the manufacture of all production tooling;
 - (c) provide technical assistance at the commissioning of the first production run of the Product and, if requested, up to two weeks further technical assistance;
 - (d) maintain in force the Licensor's Patents in the Territory.

4. Licensee's Obligations

- (a) Take all action necessary to successfully manufacture and market the Product in the Territory (including);
- (b) To properly use the Licensor's Trademarks.

5. Improvements

Each party shall keep the other informed of all improvements made in relation to the design and manufacture of the Product and shall have the right to use the other's improvements on a non-exclusive royalty-free basis.

6. Financial

(a) Payments

- on signing, \$250,000
- on commencing commercial production, \$250,000
- on issue of US patent, \$250,000.

(b) Royalties on all Products sold in each year:

- for the first 2 million products — 35c per Product
- for the next 4 million products — 25c per Product
- thereafter — 15c per Product.

Royalties adjusted by Consumer Price Index every two years.

(c) Annual Minimum Royalty

- year 2 — 1 million Products
- year 3 — 5 million Products
- thereafter — 10 million Products

7. Infringement

Each party shall notify the other of any infringement of the Licensor's patent rights in the Territory, and the parties shall promptly meet to agree on appropriate action.

8. Period

This Agreement continues until:

- (a) Licensor's Patent Rights lapse;
- (b) Licensee terminates Agreement on at least 3 months written notice; or
- (c) either party terminates where breach of Agreement is not remedied on thirty days notice;

whichever event occurs first.

9. Other usual items to be addressed:

- (a) Accounting
- (b) Addresses/Notices
- (c) Applicable law and location
- (d) Assignment
- (e) Confidentiality
- (f) Definitions – Patents, Know-how, Trademark, Product, Field, Territory, Improvement
- (g) *Force Majeure*
- (h) Representations and Warranties
- (i) Waiver
- (j) Dispute resolution

10. Legal effect

The parties acknowledge that these Heads of Agreement are not intended to be legally binding and that no legally enforceable obligation will be imposed on either party until a further agreement reflecting these principles, as they may be amended by agreement between the parties, is entered into.

II B STRUCTURE OF A LICENSING AGREEMENT

Broadly speaking a licensing agreement deals with (a) what is licensed, (b) at what price (cost and payment schedule), (c) to whom, (d) for what purpose, (e) for how long, and (e) under what conditions (warranties, disclaimers, indemnification). In practice, the following outline would help structure an agreement:

- Title
- Table of contents
- Identification of parties and signature
- Recitals
- Definitions; description
- Grant or terms of use (Extent of rights; limitations)
- Fees, royalties, minimum annual payments
- Payment terms
- Diligence requirements
- Reporting schedules
- Records/accounts
- Life of the agreement
- Termination
- Use of trademarks
- Representations and warranties (limited); disclaimers
- Intellectual property protection; conduct of prosecution
- Marking; export control
- Applicable law; choice of jurisdiction; arbitration/mediation
- Infringement; right to sue
- Indemnity; liability; insurance
- Notices
- Assignment
- Waiver
- Failure to perform
- Confidentiality/secretcy
- Miscellaneous: *force majeure*, maintenance, survival on termination, amendments etc.
- Closing; signatures, date and place, date of effectiveness

III "RATE THE NEGOTIATOR" QUESTIONNAIRE

The following questionnaire has been prepared for use in negotiation training workshops to illustrate, in an informal manner, some of the principles of negotiation. Use the scorecard attached to record your answers to these 20 questions. Circle the letter - a, b or c - which most closely tallies with your response. Then add up the number of times your answer falls into the first, second or third column, indicating the dominant and sub-dominant columns. Now see the explanation in the pages following the scorecard.

- (1) At the end of a negotiation, do you think that:
 - (a) There must be a "winner" and a "loser";
 - (b) The loser should be allowed to think he/she is the winner;
 - (c) Both sides should feel satisfied?

- (2) When a difficulty arises, do you:
 - (a) Get around it, even at a small sacrifice;
 - (b) Impose your own will;
 - (c) Wait patiently in the hope that matters will settle themselves?

- (3) You want to buy a new car, but the color of the one you prefer will be unavailable for several months. What do you do?
 - (a) Hope the showroom will tell you if someone cancels an order;
 - (b) Buy a different colored car, or a similar one at a bargain price or second-hand;
 - (c) Walk angrily out of the showroom?

- (4) Is the consent of a third party obtained most easily by:
 - (a) Explaining to them the reason why you need his/her consent;
 - (b) Pointing out the disadvantages of not cooperating;
 - (c) Playing on their imagination, spirit of enterprise or aggression?

- (5) A traffic warden gives you a ticket. Do you:
- (a) Sit down at the wheel and start up the car without speaking or looking at him;
 - (b) Try to reason with him;
 - (c) Shout abuse and tear up the parking ticket?
- (6) Your goodwill is not returned by your opposite number in a negotiation. What is your reaction?
- (a) Disappointment and bitterness;
 - (b) Do you redouble your efforts to win him/her over;
 - (c) Just think your opponent is playing the game his/her way?
- (7) What is the ideal negotiating style? Manner of speaking:
- (a) Easy (i.e. good speaker);
 - (b) Circumspect, precise;
 - (c) Skilled and convincing?
- (8) Character:
- (a) Warm, likeable;
 - (b) Overbearing, sure of oneself;
 - (c) Discreet, subtle?
- (9) Intelligence:
- (a) Brilliant, capable of impressing an audience;
 - (b) Capable of deep analysis with faultless memory;
 - (c) Commonsense, clarity and open-mindedness?
- (10) Clothes and outward appearance:
- (a) Elegant and discreet;
 - (b) Sporting and trendy;
 - (c) Unaffected?

- (11) When a salesperson rings your doorbell, what is your first reaction?
- (a) You refuse to talk to him/her;
 - (b) You only buy what you really need;
 - (c) You haggle without intention of buying, because it amuses you?
- (12) A casual business acquaintance asks a favor which would bring you no immediate advantage. What do you do?
- (a) Ask a favor in return;
 - (b) Perform the favor without expecting anything in return;
 - (c) Make some pretext for refusing?
- (13) If the opportunity arises, do you:
- (a) Socialize with the negotiator to keep on good terms;
 - (b) Try to keep relations on a strictly business level;
 - (c) Try to infuse some human interest into your business relations without overdoing it?
- (14) When you have to make an important decision by telephone, do you:
- (a) Consider that the talks are binding;
 - (b) Always request confirmation in writing;
 - (c) As a general rule, refrain from being too affirmative (e.g. by making excuses and not hesitating to go back on your word)?
- (15) During the course of a deep and intense discussion, your opponent quotes figures that are incorrect. You possess irrefutable proof of this. What do you do?
- (a) Let your opponent insist what he/she says is true, in order to refute him/her afterwards;

- (b) Advise your opponent to think it over again;
 - (c) Interrupt your opponent immediately to expose the mistake?
- (16) During some important negotiations, one of your opponents approaches you discreetly and says: "There are always ways and means of arranging these matters between ourselves." What attitude do you take?
- (a) You agree;
 - (b) Turn him/her down;
 - (c) You ignore/pretend not to understand the approach?
- (17) When your colleagues have rambling conversations, do you:
- (a) Keep your mouth shut;
 - (b) Express your opinions quite freely;
 - (c) Pretend to approve of what your colleagues say, even if you secretly disagree?
- (18) Supposing that during negotiations, you feel an irrational antipathy towards your opponent, do you:
- (a) Decide to hand the work over to someone else;
 - (b) Try to overcome your personal feelings;
 - (c) Continue regardless with the negotiations in order not to lose?
- (19) Do you think that in marriage it is best:
- (a) To take all the important decisions only after having discussed the matter with your marital partner;
 - (b) For one partner who is better qualified to decide on domestic subjects;
 - (c) That when couples are unequally matched, the decisions should be taken by the stronger partner?

- (20) Your son says Napoleon died in 1821, and you think he died in 1831. After having checked out which one of you is right, you decide to:
- Admit your error, and put up with some mockery;
 - Give your child a clip over the ear;
 - Talk to your child about age and chronological errors?

SCORECARD

	I	II	III
1.	c	b	a
2.	a	c	b
3.	b	a	c
4.	a	b	c
5.	b	a	c
6.	b	c	a
7.	c	b	a
8.	c	a	b
9.	c	a	b
10.	c	a	b
11.	b	c	a
12.	c	b	a
13.	c	a	b
14.	a	b	c
15.	b	a	c
16.	b	c	a
17.	a	c	b
18.	b	a	c
19.	a	b	c
20.	c	a	b
TOTAL			

COLUMN I DOMINANT, COLUMN II SUB-DOMINANT

You are a born negotiator: patient, persistent, knowing when to make sacrifices and how to put them to use. Negotiate yourself a huge pay rise. You deserve it.

COLUMN I DOMINANT. COLUMN III SUB-DOMINANT

Potentially you are also a good negotiator, but are inclined to have off days and to quarrel with people without understanding why. Invariably, the rows are followed by reconciliation. Your problem is that you don't seem to appreciate the overall picture of the problem at hand.

COLUMN II DOMINANT. COLUMN I SUB-DOMINANT

You could do better and, what is more, you know it. This means you are potentially a good negotiator. People find you are easy to get along with. All you need is more practice.

COLUMN II DOMINANT. COLUMN III SUB-DOMINANT

You are short on tact and diplomacy even though these qualities are needed every day both at home and at work. Yet you will realize the usefulness of getting on with people. You need to assert your will. Not quite a square peg in a round hole, nor an oval shape.

COLUMN III DOMINANT. COLUMN I SUB-DOMINANT

Even your real attempts at dialogue are seldom well received. You are impatient, suspicious of your colleagues' intentions and misjudge their good will. Some measure of success would give you more of the right kind of self-assurance. You might even conclude that all you need is a plan of action to cover areas of conflict. Clearly, you are not much of an asset to yourself or your company.

COLUMN III DOMINANT. COLUMN II SUB-DOMINANT

Try a more fitting job, like raising private armies and hunting pheasants. You are either a tyrant or a martyr, or a bully-boy imposing your will on others. Short-term effectiveness is your sole criterion. You make use of people rather than work with them. Unfortunately for you, when your own back is to the wall, people will exploit you eagerly.



IV ACHIEVING AGREEMENT

1. Attitude - separate the people from the problem. That is, attack the problem not the people. Understand the interests of the opposing party. Demonstrate your willingness to cooperate and to negotiate. Minimize gestures of dominance, arrogance or intimidation.
2. Reconcile interests - look to the interests that lie behind a stated position. The positions of each party may appear to be in conflict but, in fact, the interests, desires and concerns that drive those positions may have more in common than appear at first glance. Try to reconcile those interests.
3. Identification - those who identify with each other are able to interact, negotiate and convince each other more readily. Identifying with another is a nebulous concept but essentially negotiations move much more easily when we feel comfortable with the other person, feel that he or she understands us and empathizes with us.
4. First statements - non-argumentative overview of what you think is to be accomplished. May include history as well as present situation. Listen in turn to other party's opening statement. Communicate your interests. Try to achieve a "win-win" atmosphere.
5. Facts don't make or break negotiations - simply because you believe that the facts are in your favor does not mean that the negotiations should necessarily be in your favor. It is the way the facts are used that will convince the other party, not the facts in and of themselves.
6. Identify all issues - get agreement on all items to be discussed. Don't get into an argument on one item before all are brought out. Using a Term Sheet or Heads of Agreement will be helpful.

7. Start with a minor issue - minor issues are a good place to start because you can usually get early agreement which helps create a positive atmosphere.
8. Listen - "we have been given two ears and but a single mouth in order that we may hear more and talk less." Don't hesitate to ask questions. Being well informed is crucial to a successful negotiation.
9. Be accurate - when discussing process or product specifications, competitor or market information, and so on.
10. Break the price down - a hundred thousand dollar plant is only around \$1,600 per month over five years.
11. Conflict - don't let disagreement on one issue deadlock the negotiation. Put it, or these, to one side, perhaps by listing on a white board, and come back later to those issues that are still relevant.
12. Try to rely on objective criteria - if there are standard terms and conditions or generally accepted practices these are more likely to be agreed to by both parties.
13. Keep track of time - if there are deadlines involved, the negotiation is often settled in the last hour or so. Knowing the time constraints of the other side and being aware that your own deadlines are not always as inflexible as they may seem will be to your lasting advantage. Let the last minute panic work for, not against, you.

V EXAMPLES OF AGREEMENTS

In this section we will look at some preliminary agreements that usually precede the signing of a licensing agreement. As with the examples of clauses provided earlier, these examples of agreements are merely illustrative and are not to be used without review and advice of legal counsel. These agreements are as follows:

1. Confidentiality or Secrecy Agreement
2. Letters of Intent or Memoranda of Understanding
3. Standstill and Related Agreements
4. Research Agreement

*Confidentiality or Secrecy Agreement*³⁴

Prior to and during negotiations for a licensing agreement the licensor may have to disclose information which is considered confidential and which should not be used or disclosed by the potential licensee if the negotiation does not result in an agreement. For the purpose of protecting the licensor's rights, a confidentiality or secrecy agreement will often be signed by the parties as a condition precedent to disclosure and negotiation. The signing of a confidentiality agreement is also an assurance that the discussion is being entered into seriously.

Example

INDICO COMPANY LIMITED of No. 4, New Standards Avenue, Mumbai, India (the "Discloser") represents that it has certain information relating to a method for coating microscopic components (the "Information") and CHEMICAL FORMULATIONS INCORPORATED of North Shore Drive 3600, Sarasota, Florida, USA (the "Receiver") desires to receive and/or use the Information for the specific purpose of deciding whether or not to acquire license or other rights to the Information (the "Purpose").

34. See further Wendall Ray Guffey, "Preserving Secrecy in Agreements", *Les Nouvelles*, September, 1996, p. 105.

The Discloser is willing to disclose the Information to the Receiver for the Purpose of this Agreement subject to the Receiver's acceptance of the following conditions.

1. In this Agreement, "Information" includes technical, engineering, operating, commercial or other information:
 - (a) which the Discloser has provided for or communicated to or may hereafter provide for or communicate to the Receiver, whether in writing, orally, visually or by demonstration or in some other manner and whether in the form of drawings, models, hard copy documents and/or electronically recorded form; or
 - (b) which the Receiver has obtained from the Discloser by observation or, without limitation, in any other manner.
2. The Receiver shall treat all Information received directly or indirectly from the Discloser as confidential and shall not use any of the Information in any way other than for the Purpose of this Agreement.
3. The Receiver shall not disclose any of the Information to any other related or unrelated party except with the prior written consent of the Discloser.
4. The obligations under paragraphs 2 and 3 shall not extend to any Information which:
 - (a) is in the public domain, or hereafter becomes part of the public domain otherwise than as a result of any unauthorized activity or omission of the Receiver; or
 - (b) is already in the possession of the Receiver and is not subject to obligations of secrecy and was not obtained from the Discloser, or is required by law to be disclosed.

The Receiver acknowledges that any combination of features shall not be deemed to be within the foregoing exemptions merely because individual features are in the public domain or in the possession of the Receiver. The Receiver shall bear the onus

of showing its entitlement to any exemption under this clause.

5. The Receiver shall, upon termination of this Agreement and at the written request of the Discloser, return all Information which is in permanently recorded form including all copies made thereof.
6. The obligations contained in paragraphs 2, 3, 4 and 5 shall terminate at the expiration of five years from the date hereof or upon the expiration or termination of any subsequent agreement between the Discloser and the Receiver signed prior to the aforesaid expiration date, relating in whole or in part to the Information, whichever event occurs last.
7. The Discloser shall not be liable in any way for any loss of any kind including, without limitation, damages, costs, interest, loss of profits or other loss or damage, arising from any error, inaccuracy, omission or other defect in the Information.
8. The Receiver shall obtain no right of any kind to, including any right to use, the Information except for the Purpose of this Agreement.

DATED this day of

For and on behalf of
INDICO COMPANY LIMITED

For and on behalf of
CHEMICAL FORMULATIONS
INCORPORATED

By (signature)
Name
Title

By (signature)
Name
Title

Letters of Intent or Memoranda of Understanding

A Letter of Intent or a Memorandum of Understanding (MOU) is a preliminary agreement that sets out the broad intentions of the parties in entering into a binding agreement. Such a Letter or MOU generally states that the parties have embarked on and intend to continue negotiations with the intention of concluding a license agreement. Preferably, it should indicate the period of time within which such an agreement is to be concluded.

The legal consequences of such a Letter or MOU depend on the legal system in the country in question. Some national laws view them as legally binding, whereas others take the view that they establish the seriousness of intention of the parties but fall short of a binding contract. In any event, much will depend on the contents of the Letter or MOU and the intention of the parties. It is important, therefore, to bear in mind that legal obligations may well arise from this document and due attention should be paid to the elements contained therein so that it can stand alone if the envisaged final deal is not reached. In this regard, one would do well to anticipate the courts that would have jurisdiction and the law that would be applicable, which would determine how such a Letter or MOU would be interpreted. The Heads of Agreement in Annex II A addresses this issue and makes it clear that there is no binding agreement. This is often the preferred position, especially where the Heads of Agreement, Letter or MOU is initiating or progressing negotiations between the parties. On the contrary, it is possible for the Heads to be signed by the parties and for it to be made explicit that it is intended that there be a binding contract. In this event, it is important to ensure all key issues are included and that there is no ambiguity.

Standstill and Related Agreements

By a Standstill Agreement, a potential licensor grants a potential licensee a period of time to consider entering into a licensing agreement with the licensor, and the licensor agrees not to entertain any other candidate until the expiry of that period. Such an agreement

allows a potential licensee flexibility in deciding whether to enter into a licensing agreement for the technology in question and, if so, some time to prepare for it by, for example, researching the technological, financial, marketing and legal aspects of such a relationship. The licensor who provides a potential licensee with a Standstill Agreement is unable to grant other licenses for the period of the Standstill Agreement, which would normally mean a period of a few months.

The Standstill Agreement seldom involves payment in return for the opportunity and the exclusivity that is offered. The potential licensee could in principle be charged a fee (to assure serious intentions) but usually the licensor will be satisfied with the interest manifested by the potential licensee. The licensor may request a report on the licensee's evaluation of the technology and its decision. If the potential licensee requests more time the licensor may need to keep in mind that competitors may pose as potential licensees and attempt to slow down the licensor or obtain valuable business information.

A Standstill Agreement is related to an Agreement to Negotiate a License and an Option Agreement. All these agreements have the common element that they are steps towards reaching agreement on a business strategy and a commercial arrangement, and mutually acceptable terms and conditions. Sometimes there will be no advantage in entering into a preliminary commercial agreement. It may even be disadvantageous to do so. The decision to enter or to not enter into such agreements will depend on the particular facts and circumstances. It must be taken with care and invariably with professional advice.

The sample agreement that follows is an Agreement to Negotiate a License. It differs in focus and detail, but shows the legal and commercial objectives of a Standstill, Option and other preliminary agreements.

Example

THIS AGREEMENT is made this.....day of....

BETWEEN

INDICO COMPANY LIMITED of No. 4 New Standards Avenue, Mumbai, India, ("Indico"), of the one part, and

CHEMICAL FORMULATIONS INCORPORATED of North Shore Drive 3600, Sarasota, Florida, USA, ("Chemical"), of the other part.

NOW, THEREFORE, in consideration of the mutual covenants and premises herein contained, the Parties agree as follows:

1. The Parties wish to set forth the conditions under which they will negotiate a license in good faith for the technology described in Schedule A ("Technology"). Such license is to be completed and effective no later than 180 days from the date of this Agreement (the "Term").
2. During the Term, Indico will not pursue any license agreement relating to the Technology in the "Field" with any other organization, commercial entity, business or individual.
3. Within 60 days from the date of this Agreement, Chemical will submit a plan acceptable to Indico for providing or securing funding for further development of the Technology.
4. Indico and Chemical will commence negotiation of a license within 30 days after Indico's receipt of the funding or by the end of the Term, whichever is sooner. Chemical agrees to submit to Indico plans for further developing and commercializing the Technology at the commencement of negotiations.
5. The Parties wish to negotiate a license that grants Chemical an exclusive, royalty-bearing, worldwide license, with the right to

grant sub-licenses, to use the Technology to manufacture, have manufactured, use, sell, import, and/or offer for sale Licensed Products or Methods for use within the Field.

6. This License will include at least the following provisions:
 - (a) reimbursement to Indico of all domestic and foreign patent expenses to date;
 - (b) payment of future patent expenses;
 - (c) payment of an up-front license fee;
 - (d) payment of a running royalty rate;
 - (e) appropriate milestone payments;
 - (f) diligence requirements for commercializing the Technology; and
 - (g) indemnification, confidentiality, and publication provisions and other reasonable and customary terms in a license agreement.
7. Chemical agrees to pay Indico (*amount*) (the "Fee") due and payable when this Agreement is signed by Chemical. Chemical further agrees to reimburse Indico for all patent expenses that become due during the Term.
8. The Parties will treat each other's confidential information as follows:
 - (a) Indico and Chemical each agree that all information contained in documents marked "Confidential" and forwarded to one by the other (1) are to be received in strict confidence, (2) used only for the purposes of this Agreement, and (3) not disclosed by the recipient Party, its agents or employees without the prior written consent of the other Party, except to the extent that the recipient Party can establish competent written proof that such information:
 - i. was in the public domain at the time of disclosure;
 - ii. later became part of the public domain through no act or omission of the recipient Party, its employees, agents, successors or assignees;

- iii. was lawfully disclosed to the recipient Party by a third party having the right to disclose it;
 - iv. was already known by the recipient Party at the time of disclosure;
 - v. was independently developed by the recipient; or
 - vi. is required by law or regulation to be disclosed.
- (b) Each Party's obligation of confidence hereunder shall be fulfilled by using at least the same degree of care with the other party's confidential information as it uses to protect its own confidential information. This obligation shall exist while this Agreement is in force and for a period of five years thereafter.
- (c) Indico recognizes and agrees that Chemical may, from time to time, need to enter into related confidentiality agreements with third parties. Chemical agrees that confidential information will not be disclosed to third parties unless a confidentiality agreement has been fully executed between Chemical and the third party. Such confidentiality agreement will be at least as restrictive as the terms and conditions set forth in Schedule B. Chemical agrees to provide Indico a copy of all confidentiality agreements within 30 days of their execution.

IN WITNESS WHEREOF, the Parties hereto have caused their duly authorized representatives to execute this Agreement.

For and on behalf of
INDICO COMPANY LIMITED

For and on behalf of
CHEMICAL FORMULATIONS
INCORPORATED

By (signature)

Name

Title

By (signature)

Name

Title

Schedule A (Technology)

Schedule B (Confidentiality Agreement)

Research Agreement

In research and development agreements, a research institution or company undertakes to carry out a research study or trials on the basis of its own existing expertise. The party providing the financial support for such a project is often a company seeking a technology-focussed outcome such as a new or improved process or product.

Each party to such an agreement brings to the partnership certain knowledge or expertise that is lacking in, or desired by, the other. In the preliminary paragraphs of the agreement, for example in the Recitals, the expertise and the intellectual assets that each partner brings, are set out. This is the “background knowledge” of each party. Such background knowledge remains the property of that party and no implied license is given to commercialize it, only a right to use it in the context of the cooperative research effort as envisaged in the agreement.

The results of the common undertaking are referred to as the “foreground knowledge.” The agreement may stipulate that any invention that arises from the research stays with the inventing party; and that joint ownership in the foreground knowledge (and joint application for patents) can follow when the employees of both parties have made a contribution to the inventive steps. If so, when the claims are formulated, it will be important to establish who made the inventive step, or contributed to it, for each claim. If, however, the agreement states that the ownership is joint for the foreground knowledge the situation is clearer - both parties would be applicants regardless of who in fact was the inventor. Of course the bargaining strength of each party will have an impact on these issues. The example below depicts a more balanced agreement where one partner is given the option to commercialize the results in return for the payment of a royalty.

Government regulations with regard to the funding of scientific research can have an impact in this area. Several countries have laws stipulating that when public funds are allotted to a specific research

plan, then the resulting intellectual property is to be owned and/or exploited according to pre-set rules. In the United States, the government can influence the licensing decisions if federal funds were involved in the research. In Europe, European Community funding ensures that the European commercial partner receives either full title or a license to manufacture and sell. In some countries, the inventions made with the aid of government funding could end up in the public domain.

A research agreement can be of particular interest to universities and companies in developing and least developed countries having expertise in areas that are specific to those countries, but that lack funding or other resources to undertake the necessary research and development. A partnership with a company that can provide the funding, complementary expertise and knowledge will create opportunities for knowledge sharing and for building up a research base vital in the modern knowledge economy.

Example

THIS AGREEMENT is made this.....day of

BETWEEN

VETRIN COMPANY LIMITED, incorporated under the laws of the Hashemite Kingdom of Jordan, with its principal place of business at (*address*), and duly represented by (*name*) Company Executive Officer, duly authorized, on the one hand, hereafter referred to as "Vetrin", and

The UNIVERSITY OF XYZ, a legal entity under the laws of Belgium, with its administrative seat located in (*address*) and duly represented by (*name*), who entrusts the execution of this Agreement to Profs. ABC and DEF of the Department of Pharmaceutical Science, (*address*), on the other hand, hereafter referred to as "the University."

Preamble:

- Vetrin is a leading manufacturer of veterinary medicines;
- The University has expertise and skill in the field of compressing beads into tablets (the “Technology”) and has filed a patent application under the PCT with publication number WO 02/25511 entitled “Cushioning wax beads for making solid shaped articles” (the “Patent”) described in Appendix 1;
- Vetrin is interested in developing a specific pharmaceutical form containing Hexomidine for administration to animals by entrusting the University to perform the research work described in Appendix 2 (the “Project”).

Now, therefore, the Parties hereby agree as follows:

Article 1 – Purpose

The purpose of this Agreement is the development of coated and compressed pellets containing Hexomidine for use in animal health (the “Product”) according to mutually agreed specifications and as described in Appendix 2.

Article 2 – Exclusivity

During the term of the Agreement, the University agrees that it will not engage or participate in, advise, consult or assist in any manner any third party which in any way deals with the Product without having obtained the prior written consent of Vetrin.

Article 3 – Project to be performed by the University

3.1 The general work the University shall provide to Vetrin under this Agreement shall include:

- phase I: the completion of pellets containing Hexomidine;
- phase II: the coating of these pellets; and
- phase III: the supply of a coated and compressed pellet prototype.

- 3.2 The University shall perform the Project according to the time schedule as set forth in Appendix 2.
- 3.3 The University shall send to Vetrin, upon the completion of each phase, a written report. These reports shall contain details of the findings and results obtained and acquired during the carrying out of the Project.

Article 4 – Organization of the Project

For the University, the Project shall be carried out by the Department of Pharmaceutics (Laboratory of Pharmaceutical Technology) under the scientific responsibility of Prof. ABC.

For Vetrin, the Project Director will be Dr. XYZ or another person designated by Vetrin and notified to the University.

Article 5 – Compensation

- 5.1 For the Project carried out under this Agreement, Vetrin shall pay the University an amount of (*amount*).
- 5.2 This amount shall be paid by wire transfer as follows:
 - 50% upon the signing of this Agreement
 - 25% upon the initiation of Phase II.
 - 25% upon the initiation of Phase III.These installments are to be paid by Vetrin into account number (*number*) of (*Bank*).
- 5.3 Payments are made at the first request of the University, after invoicing.

Article 6 – Ownership of intellectual property rights

- 6.1 The Parties agree that title to any intellectual property and technology, including patent rights associated therewith conceived by either Party prior to this Agreement (the “Background Property”) shall remain with that Party. Intellectual property arising from the Project (the “Foreground Property”) shall be exclusively owned by Vetrin where an invention made or know-how acquired relates exclusively or specifically to the compound Hexomidine. Where an invention made or know-how acquired relates to the application of the University’s Technology as described in the Preamble specifically for the

compression of pills containing the compound Hexomidine, then the property thereof shall become the full and exclusive property of Vetrin if and when a license agreement is signed between the University and Vetrin with a royalty of three percent (3%) as indicated in section 6.2.

- 6.2 Vetrin has an option to negotiate a non-exclusive Patent and Technology license agreement enabling Vetrin to use the University's Background Property for the manufacture, use and sale of Product.

This option must be exercised by notice in writing within six (6) months of the receipt of the phase III report and completion of the Project.

The terms and conditions of this license shall be negotiated by the Parties in good faith and being understood that the Parties have already agreed that in consideration of the license granted by the University, Vetrin will pay a royalty of three percent (3%) on the worldwide net sales of the Product.

Article 7 - Confidentiality

- 7.1 Both Parties shall treat as confidential, and not disclose to any third party, any information of a general, business and technological nature received from the other Party. Such obligation shall not apply to any portion of such information which is already in the public domain or is already known by the receiving Party at the date of receipt of the information or is independently developed thereafter, as evidenced by documentary material in the possession of the receiving Party.

Such obligations shall cease at the time such information enters into the public domain through no wrongful act of the receiving Party or is lawfully received by the Party from a third party not being itself in breach of any obligation of confidentiality.

- 7.2 All information relating to the development of the Product shall be the property of Vetrin and shall not be disclosed by the University without prior written consent of Vetrin.
- 7.3 The obligations and restrictions provided in this article 7 should survive termination and/or expiry of this Agreement for a period of ten (10) years.

Article 8 – Duration

This Agreement comes into effect on (*date*) and shall remain in force until the end of Phase III unless terminated earlier as provided in Article 10.

Article 9 – Termination

- 9.1 Vetrin shall have the right to terminate this Agreement at the end of each Phase, by giving notice in writing within thirty (30) days of the receipt of any of the reports pursuant to Article 3, should the results of the Project not meet the specifications of Vetrin.
Vetrin will pay the University the reasonable costs for the Project that has been performed up to the effective date of termination.
- 9.2 The University shall have the right to terminate this Agreement should Vetrin fail to make any payment as provided in Article 5.
- 9.3 If either Party fails to perform any of its obligations under this Agreement, and such defaulting Party has not ceased such failure within sixty (60) days after receipt of notice in writing to that effect from the other Party by registered letter with acknowledgement of receipt, then the other Party shall have the right to terminate this Agreement by giving thirty (30) days notice to the defaulting Party by registered letter with acknowledgement of receipt.
- 9.4 If this Agreement is terminated, for whatever reason, the equipment purchased at the expense of this Agreement becomes the legal property of the University.

Article 10 –Dispute resolution and applicable law

Any dispute, controversy or claim arising under, out of or relating to this Agreement and any subsequent amendments to this Agreement, including, without limitation, its formation, validity, binding effect, interpretation, performance, breach or termination, as well as non-contractual claims, shall be submitted to mediation in accordance with the WIPO Mediation Rules. The place of mediation shall be [London]. The language to be used in the mediation shall be [English].

If, and to the extent that, any such dispute, controversy or claim has not been settled pursuant to the mediation within

[90] days of the commencement of the mediation, it shall, upon the filing of a Request for Arbitration by either party, be referred to and finally determined by arbitration in accordance with the WIPO Arbitration Rules. Alternatively, if, before the expiration of the said period of [90] days, either party fails to participate or to continue to participate in the mediation, the dispute, controversy or claim shall, upon the filing of a Request for Arbitration by the other party, be referred to and finally determined by arbitration in accordance with the WIPO Arbitration Rules. The arbitral tribunal shall consist of [a sole arbitrator]. The place of arbitration shall be [London]. The language to be used in the arbitral proceedings shall be [English]. The dispute, controversy or claim referred to arbitration shall be decided in accordance with [English law].

Article 11 – Miscellaneous provisions

- 11.1 This Agreement or rights and obligations arising from it cannot be assigned or transferred to a third party by either of the Parties without the prior written agreement of the other party.
- 11.2 Any amendments and supplements to this Agreement shall be agreed to in writing.
- 11.3 Should any one or several of the provisions of this Agreement be or become invalid, this shall not affect the validity of the other provisions.
- 11.4 This Agreement constitutes the entire agreement between the parties and supersedes all previous agreements and understandings between the parties.

FOR AND ON BEHALF OF
VETRIN COMPANY LIMITED

FOR AND ON BEHALF OF
THE UNIVERSITY OF XYZ

By (signature)

By (signature)

Name

Name

Title

Title

Appendix 1 (Patent)

Appendix 2 (Project)

VI CASE STUDIES³⁵

Introduction

The key principles and issues that have been discussed in this Manual are illustrated and come together in the following case studies. They are based on realistic situations and provide an opportunity to exercise and apply these principles. They are most useful in negotiation workshops, which provide training in the art of negotiation. In making practical use of these case studies, participants are divided into teams of licensors and licensees who are expected to aim at a “win-win” agreement through negotiation. Teams of licensors and licensees working with the same case study may come to very different agreements. Yet, if such agreements were satisfactory to each team then they would have all reached the goal of a “win-win” agreement. Ideally, such teams would be assisted by a licensing facilitator who will guide the participants through the licensing issues and the negotiation process. However, it must be emphasized that, while these case studies can only be used to their full potential through a workshop, they will also be quite useful to individual readers in illustrating and clarifying the issues discussed in the Manual.

The negotiation exercise involves preparation through group discussion, followed by the actual negotiation around the table with the potential future partner. The goal is to reach mutual agreement and the main features to be recorded in a “Heads of Agreement.”

Both teams must, in preparing for the negotiation, be ready to conclude an agreement regarding:

- (a) the intellectual property to be transferred/received or the license given/received;
- (b) the eventual tying in of other aspects of transfer or cooperation;

35. The information given in these case studies is fictional and any similarity between any real person or company and a person or company portrayed in any of the case studies is coincidental. The statistical data given and the properties ascribed to the technology discussed are not necessarily accurate or in accordance with the conventional wisdom of the industry. They have been prepared for discussion and for training purposes only.

- (c) warranties and representations;
- (d) the field of application;
- (e) the clauses regarding improvements and patenting of future improvements;
- (f) payment clauses and of financial obligations;
- (g) liabilities;
- (h) termination of the agreement.



The readiness of each team to seek trade-offs and to accept compromise-offers should be debated in advance during its preparation. There must be agreement as to the minimum that each side will accept; a “walking-out point.” Each member of the team should be made aware of his or her area of expertise and skill and thus the areas in the negotiation where their active participation would be required. Each team shall appoint a reporter who should, after the negotiations, explain to all the participants in the plenary session the original goals of the team and compare them to what was actually achieved.

A. A Method for Coating Microscopic Components

Case History

Ms. Sandra Eureka, Senior Researcher at Indico Company Limited (Indico) of Mumbai, India, has invented a new method for coating microscopic components. This is a platform technology with great potential. Chemical Formulations Incorporated of Florida, USA (Chemical) would like to have an assignment of the invention or at least exclusive worldwide rights for certain product application(s).

The following material includes four exchanges of letters and notes on one telephone conversation. They are the background to the parties' dealings prior to this meeting which has been arranged to discuss the principal terms of a commercial agreement.

1. The invention

The Technology Development Department of Indico has invented a new method of coating microscopic components, whereby chemical components are stabilized and are not altered chemically. After treatment, the chemical substances and pharmaceutical components become easier to handle, to store and to dose, especially under humid and hot conditions. This makes the invention attractive for the tropics. Medicinally-active compounds can, furthermore, because of the coating, be subjected to a controlled or slowed-down delivery in the bodies of humans and of animals. The invention also has potential for avoiding evaporation of dangerous or noxious chemicals and diminishing the blowing away of dirty or dangerous substances. The invention can thus be used in the pharmaceutical industry as well as for environmental (eventually also agricultural) purposes.

The method has been laboratory tested on certain materials.

The new technology has not been made public. Its development is still in an early phase and it is not yet the subject of a patent application.

2. The parties and their respective expectations

The inventor Sandra Eureka and Indico know this field of technology very well and are confident that the coating technology is novel and inventive. They are aware, however, that work on an industrial-size application and better data on the physical and chemical qualities and processes would undoubtedly strengthen a patent application. For this, Indico needs money (for another researcher and for costs of outside production and neutral evaluation). It is also taken for granted that the application should be well prepared and should then be taken on a very broad geographical scale - so again the financial support of a strong commercial partner is considered necessary.

The inventor believes this technology holds promise for the improved application of several existing medicines in the human and veterinary area and is aware that demonstrating its success by applying the technology would create a much bigger value for the invention. Indico also holds promise; it has a number of scientific and commercial successes and is making inroads into markets of African countries through a number of good connections in the distribution, transportation and storage of chemicals and fertilizers.

Indico's goal is to maximize profit from the invention. It wants a considerable lump sum paid as soon as possible after the signing of the Agreement. This way it can cover the costs of earlier research and later patenting. The inventor, on her part, has expectations too. She has been involved in finding the commercial partner and she will play an important role in the negotiation and, subsequently, the application of the invention to the particular use that the licensee wishes to develop. She would be especially happy with a big up-front payment and is less interested in the promise of future income by way of royalties on sales of the product, because she personally receives a premium on the date of closing of the License Agreement.

There is now an interested party from the industrial sector: Chemical, a company with good standing in the field of pharmaceutical

commodities, in particular in tropical medicines, and with good relations with chemical industries and even with its own distribution companies in South America, Asia and Africa. Chemical is an American company based in Florida. It has heard of the new invention through one of its employees, who was briefly active in a university project in India. After that, Chemical sent a scientist to an international meeting where Indico gave a rather general presentation of its work. Chemical does not have all the know-how about the new technology. It has asked the inventor to provide all information on it and to start negotiation for an exclusive, overall assignment and transfer of all rights with a view to the development and the commercial exploitation of the invention.

The technology that Indico has invented has, however, not been tested for consistency in production batches of the particular medicinal compound that interests the potential licensee.

Chemical stated that it had, among the products it produces for one of its major customers, an interesting opportunity for application (which it would at first not name). It said that it wanted to become more active in developing and marketing this technology for several applications, together with other partners.

In fact, although Indico is not fully aware of this, Chemical has an urgent need for this technology because it delivers a chemical commodity to a pharmaceutical company that has a successful medicine of which the patent is running out and for which the distribution in tropical areas of the world could be dramatically improved using this technology. They wanted to move quickly and therefore they invited a team of three negotiators from Indico to the beach resort area of Sarasota in Florida suggesting that the contract should be concluded there and then. The Indico team has held off its trip.

Chemical has now, when this negotiation starts, asked the technology manager of Indico for a price offer for the technology in all its applications.

3. Previous written exchanges

The following four letters were exchanged.

1. A letter from Chemical
2. A letter from Indico
3. A letter from Chemical
4. A letter from Indico

Letter No.1

**Chemical Formulations Inc.
Florida, USA**

Mr. Charles Barnum,
Product Development Manager

To:
Ms. Sandra Eureka
Office of Technology Development
Indico Company Ltd.
Mumbai
India

Dear Ms. Eureka,

We had the pleasure of meeting you at the India Habit Centre Conference last month and we have had the chance to consider possible applications of the new technology you presented about neutral fine coating in pharmaceutical active compounds.

My company is very interested in this new technology. We are eager to enter into discussions with a view to testing the application of this coating to a compound used by one of our major clients. Please put us in contact with the persons responsible for the commercialization of your invention and please send us details regarding the patent or patent application for your invention.

We could be interested in the broadest possible applications, as we are a technology company that provides customers with commodities and chemical compounds. If, in effect, we were to find potential in your invention, it would be a matter of principle for us to acquire the proprietary rights to the invention; so we look forward to negotiating with you a broad, and for you a very advantageous contract.

I look forward to doing business with you.

Yours sincerely,

Charles Barnum

Letter No. 2**Indico Company Ltd.
Mumbai
India**

S. Xanadu
Head
Office of Technology Development

To:
Mr. Charles Barnum
Product Development Manager
Chemical Formulations Inc.
Florida
United States of America

Dear Mr. Barnum,

Our Senior Researcher, Ms. Sandra Eureka, has handed me your letter containing your proposal to enter into an exchange about our new technology of coating chemical compounds with a hot spray in order to stabilize the compound.

I enclose herewith a model of a confidentiality agreement that we require to be signed by representatives of your corporation in order to allow us to proceed with our negotiations. Please return this to me at your earliest convenience.

I can tell you that this new technology is not being actively developed at present and that we are indeed interested in proving its feasibility and its industrial application, in which we have the fullest confidence. Cooperation with your company would be seriously studied. We would be looking to conclude with you a research agreement to sponsor the further refinement and the scaling-up of the application to the pharmaceutical compound you are thinking of. Please send me particulars of the compound you wish to submit to this technological process. We can then tell you whether we have worked with similar products before and, if so, we would consider sharing with you any earlier test results we might have.

I look forward to receiving the signed confidentiality agreement and to entering into negotiations with you and your company.

Yours sincerely,

S. Xanadu

Letter No. 3**Chemical Formulations Inc.
Florida
USA**

Mr. Charles Barnum
Product Development Manager

To:
S. Xanadu
Head
Office of Technology Development
Indico Company Ltd.
Mumbai
India

Dear Mr. Xanadu,

Thank you very much for your letter of [date].

I have forwarded your request for a confidentiality agreement (and the model contract that you kindly enclosed) to our legal department and I expect this to be processed within a short period of time. If any queries should arise, I may have to come back to you on the matter. I trust you will not mind if we revert eventually to using the model contract, or certain standard clauses, as commonly adopted and usually found to be acceptable in the trade? I hope to be in a position to send you a signed proposal for your agreement soon.

At this stage, I cannot disclose any more about the compound for which we seek to test your invention. We now understand that you are at an early stage in the development, but I am still eager to hear which patent application you have made. Our technical people are asking me for information on your production procedure or technical specifications, and for the text of your patent claims.

I would ask you to please take into account the fact that our company is a leading technology company and that we have been developing applications for the treatment of chemicals such as this coating. We would like to enter into close cooperation with you as soon as possible so that we may test your technology and decide on our likely level of future interest. Even at this stage, we would like to announce that we would want to develop the first application for you and with you; but in that case we would wish to negotiate straight away for a total assignment of the technology platform. We feel that, based upon our position and experience in the market, and on our broad client-base, we can offer you the best value. We suggest that you do not wait until the

confidentiality agreement is sent before preparing the communication on the technical details of the invention, and we would also appreciate knowing what value you put on this technology. Furthermore, we would like to know for what sum or consideration your company would be prepared to transfer property in the technology and in the know-how related to it. We can help you to prosecute the patents, and we would want to have sight of the complete application process so that commercialization can be based on correct and full information.

I have discussed this matter with our management and I have the pleasure of inviting you and possibly one other person to our offices in Florida so that the whole process of negotiation can be conducted in the most direct and personal manner. I am thinking of a meeting during the course of January or February. I should be most grateful if you could let me know whether such a trip, for the specific purpose of negotiating and closing the contract, meets with your approval.

We look forward to our close cooperation in the future and remain,

Yours sincerely,

Charles Barnum

Letter No. 4**Indico Company Ltd.
Mumbai
India**

S. Xanadu
Head
Office of Technology Development

To:
Mr. Charles Barnum
Product Development Manager
Chemical Formulations Inc.
Florida
USA

Dear Mr. Barnum,

We have received your request for a meeting to negotiate the assignment of our new technology for the coating of chemical compounds. I thank you also for your telephone call, which was useful in clarifying the wishes of your company with regard to this technology. The confidentiality agreement has not been received.³⁶ This prevents me, temporarily, from sending you more technical details. I hope to be speaking with you again shortly.

I shall try to suggest to you some points that may be helpful when you consider the questions of transfer of the technology and of payments in compensation. I am hopeful that we shall get to the position of being able to discuss the modalities of your use of our technology within the next few weeks.

I understand that you would like to have the sole rights to the technology invented by Ms. Sandra Eureka regarding the process of chemically-neutral glazing in a hot spray. I can understand that your company would want to use the technology for one or more of its own compounds and possibly to license it out to third parties. Our company has had bad experiences with the assignment of patents, where the commercialization proved not to be assured or was not diligently enough pursued. We also feel that evaluation of the invention at this stage, when its full potential is not yet apparent, would tend to be to our disadvantage.

36. The signed confidentiality agreement was received by Indico just after this letter was sent to Chemical.

Our own first choice would be to work towards an agreement with Chemical, in which Chemical itself has exclusive rights to the use of the invention regarding a named compound or a narrowly defined group of compounds. This could eventually be broadened to contain a second named area of application, under a right of first refusal that we could grant for an agreed period of time.

Our concern is the maximum beneficial development and use of the invention. In case you would, at a later stage, find an application that was not previously considered, then we would certainly treat you as a preferential partner and we could add wording in a contract that your future requests should be treated preferentially.

Our expectations of payment are probably no different from those that you currently have in your business. We negotiate on the basis of the innovative (eventually revolutionary) character of the invention and of the commercial gains it may bring, of the extent of its patent protection and of development and its promise of protection and applicability.

We believe this coating technology has great potential for the treatment of several pharmaceutical and chemical compounds as well as in the field of environmental protection and in agricultural spraying of chemicals and of fertilizers. We believe it is so promising that we do not at present want to assign it or license it broadly.

At this early stage, however, and because we are eager to build cooperation with your company, we believe it best to be open with you from the outset. For the application with the blood-pressure-reducing compound we are asking a lump sum of US\$1 million. This up-front payment will assure us of the strength of your interest and your resolve to drive forward towards a marketable product. Thereafter, we are asking for royalties of 2% to 3% based on sales turnover. I mention this margin here to allow flexibility in the case of an eventual compensation of the lump sum from those royalties due, or to allow for an increase over a short period of time.

If you should want a broader area of application, for example with your own proprietary compounds, then we would need to structure a right of first refusal for such different compounds. For that purpose, I would propose that Chemical, upon paying a further US\$100,000 per specific application, would be allowed to call for and obtain that right to apply the technology.

In case you would nevertheless want to develop the invention by seeking third parties for sub-licenses and by helping such third parties invest in research and development regarding its application, then please clarify to us your goals and try and give us assurances that you would indeed commercialize effectively. For such an approach, we would need your agreement to a higher lump-sum to be paid by Chemical and detailing on the one side your own royalties and on the other side our share from the income that Chemical would make from its sub-licensees. We expect 25% to 30% of all such lump sums, royalties or compensation that Chemical would receive from its sub-licensees for the invention, depending on the size and the risks of investments that

would be made on the side of Chemical. We would also need clauses assuring us of effective merchandising and market introductions or alternatively leading to a return of the license to Indico.

I think it is too early for us to take well-informed decisions on this second hypothesis.

Whichever way we proceed, however, I should always want my company to remain free to find and develop new applications of the technology alone or with third parties of our own choosing. We will retain our own right of initiative and will want to retain for ourselves exclusivity for a specific application that we develop (alone or with others), under the condition that we would first inform you that we have a realistic plan to develop that specific application. If we allow you rights to develop the technology in a broader field, then any agreed-upon application by yourself or your sub-licensees would in our view need to be on a non-exclusive basis.

Those are, Mr. Barnum, some of the principles to which we are committed and I hope that my describing them now may help you in our upcoming exchanges. I trust you will indeed be willing to pursue the development of this technology and that you will want to make your own proposals known to me at an early stage.

I look forward to hearing from you.

Yours sincerely,

S. Xanadu

4. Memorandum for the Team Indico: Memorandum on a telephone negotiation as noted down by Mr. Xanadu (Indico)

(NOTE: These Internal Memoranda are made accessible to the respective participants in order to help assess some of the signs and expectations that one otherwise seeks through more extensive exchanges, possibly through face-to-face meetings.)

Memorandum

Written by: S. Xanadu

Negotiations with Chemical

A conference call was initiated by Charles Barnum and the Commercial Director of Chemical and myself. I brought Sandra Eureka in on the line.

I opened the negotiation on valuation with a request for US\$1 million. The Director gave us oral acceptance of a lump-sum payment of US\$500,000. This went seemingly easily. We have a bite. It gives us good value for the research investment made and gets us started without delay or hesitation.

There is also agreement that the largest part of the up-front payment should be made within three months of signing, in three installments based on the successful production of three different types of batches of the Product. The "Product" in this sense is the application of the invention to the pharmaceutical compound of Chemical's customer. The three batches are: a trial batch made by Indico, an industrial size batch made in the production facility of Chemical in South Florida under tropical conditions and then a batch suitable for clinical trials. The remainder of the lump sum payment has been promised for the day that Chemical enters into an agreement with the pharmaceutical partner to start clinical trials.

We know it has been impossible to produce their customer's medicine LowBloodMed locally in tropical countries.

We have been able to find out that the patent protection on their medicine is running out for the active component of this medicine. We also have Sandra working on identification of the patent, so that we can look into their cards better.

Furthermore, information available publicly (e.g. annual reports) suggests to me that Chemical makes US\$100 million in annual sales of this class of commodities, and this is about 10% of the world market (Chemical's total pharmaceutical sales are around US\$5 billion). Chemical could be eager to acquire a new period of patent protection on a new production technique with controlled-release characteristics that would be markedly superior to the present delivery by capsules. Most probably, time will be important to them.

They make a strong point about getting broad rights. I referred them to my past letters and have said we cannot do this. I remained constructive and said I would give our lawyer the task of working out an option for Chemical to eventually receive more of our other particular applications.

Then Barnum also insisted that we quickly conclude a Letter of Intent whereby we agree to negotiate only with them towards first improving the invention and applying it together with us to LowBloodMed and then to assign or broadly license the invention. I immediately responded that our management would probably make the signing of a Letter of Intent conditional upon this Letter containing the future royalty rate for the main agreement. I also stated that it should already be agreed that the projected up-front payments would indeed follow within three months after the signing of the agreement.

5. Memorandum for the Team Chemical: Note on a telephone negotiation - by Charles Barnum (Chemical)

(NOTE: These Internal Memoranda are made accessible to the respective participants, in order to help assess some of the signs and expectations that one otherwise seeks through more extensive exchanges, possibly through face-to-face meetings.)

Note

By: C. Barnum

Telephone conversation with Indico

During the telephone conversation I obtained an agreement in principle to start cooperation with Indico. Some of the initial hesitation went away when Ms. Eureka came on the line. She evidently has a stake in the process application and exerts authority over there.

I had to (reluctantly) explain that Chemical has a successful medicine on the North American market (FDA approved) for the treatment of high blood pressure (I have branded this active compound the LowBloodMed). The compound was not identified. I did explain that to administer this medicine it needs to be put in a capsule and that it is very sensitive to humidity. The present commercial form of the medicine also presents higher costs when the company wishes to vary the doses in industrially-produced packaging.

I painted the picture that our common economic goal is that a good part of the existing production may be rapidly switched to this treatment and I said a huge turnover can be expected.

The boss told me to lay down a precise agreement for the refining of the production technique of this invention and for testing the application of the invention as it applies to LowBloodMed.

We clearly explained we cannot pay US\$1 million, but are willing to advance the costs of development up to an amount of US\$500,000. This money is earmarked for the development of the application of our customer's medicine and should come in the form of the lump sum payment they had asked for in their letter. I made the offer of three partial payments of US\$100,000 that could follow reasonably quickly after the conclusion of the main agreement. But preparing clinical trials will take more than three months.

We would hope to acquire a new period of patent protection if this new production technique with controlled-release characteristics proves to work. The time available for doing this is very short, so fast negotiations will be essential.

The commercial presentation of a product with this glazing would be markedly superior to the present delivery by capsules. So even without patent protection we will be in good shape and my advice is to press towards the early commencement of human trials for the application.

I requested a Letter of Intent. I said I want an early Letter of Intent, insisting on a broader application of the technology for Chemical, because this technology can take off thanks to *our* early support and *our* investment and know-how. We must have the right of exclusive, or at least sole, use of this whole technology platform throughout the world.

Our lawyer, Chuck Foresite, has emphasized that ideally we must obtain the personal right for Chemical to apply for application-patents for the new applications and improved formulations that we (or Indico) may find in the future. The boss impressed on them that we would be counting on agreeing on an advantageous royalty rate on sales of products using this technology and that we should have the same good rate for this first application as for other (later) applications.

6. Commercial figures (to be handed out with memo 4 or 5 when the participants break into teams)

I - Costs of trials

A series of pre-clinical and clinical tests have to be made before a drug is approved by the national regulatory authority. In this case the tests are being conducted on a fast-track basis: five years (average is 10 years). The costs for conducting these trials is estimated at US\$20 million, as follows:

Phase	Costs in US\$	Duration
Pre-clinical	1 million	1/2 year
Clinical 1 (safety)	1 million	1/2 year
Clinical 2 (efficacy)	5 million	1 years
Clinical 3 (benefits, reactions)	10 million	2 years
FDA Approval/ marketing	3 million	1 year
Total	20 million	5 years

II - Success rate/Profit

It is estimated that the compound has a 60% chance of completing the clinical trials successfully and obtaining approval (average 10%). The retail selling price of the compound is estimated at US\$50, with a profit of US\$35 (or 70%) before corporate overheads including research and marketing expenses).

B. A Vaccine for Treating Tuberculosis

Case History

Tuberculosis (TB), a chronic bacterial infection, causes more deaths worldwide than any other infectious disease. TB is spread through the air and usually infects the lungs, although other organs are sometimes involved. Some two billion people, one third of the world's population, are infected with the TB organism and the number of new TB cases each year is over eight million. TB's reach extends to all economies, over borders and across age groups.

With appropriate antibiotic therapy, TB can usually be cured. In recent years, however, drug-resistant cases of TB have increased dramatically. This is a major concern, but even more alarming is the increase in the number of people with multi-drug-resistant TB (MDR-TB), caused by TB strains resistant to two or more drugs.

In those parts of the world where the disease is common, a vaccine is given to infants as part of the immunization program recommended by the World Health Organization. In infants, the vaccine prevents the spread of TB within the body, but does not prevent initial infection. In adults, the effectiveness of the vaccine has varied widely in large-scale studies. Because of the limitations of the vaccine, more effective vaccines are urgently needed for the treatment or prevention of TB, and especially MDR-TB.

Three years ago, Dr. Humphries, a senior researcher at the University of Melbourne with an extensive knowledge of immunology, discovered a process to construct or manufacture a vaccine that seemed to address these problems. It is known to produce or initiate an immune response by providing an antigen, and cytokines are also well known to enhance immune response. The crucial aspect of Dr. Humphries' discovery is that it does both at the same time with a multiplier effect, i.e. the two-pronged approach initiates and expands the body's immune response to bacterial infection.

Ocker Limited, a manufacturer of diagnostic kits for identifying TB infection, was assigned the rights to the invention in exchange for a parcel of Ocker shares. Ocker agreed, in a separate agreement with the University and Dr. Humphries, to repurchase the shares for US\$125,000 in five years' time if they wished to relinquish them then. Ocker filed patent applications around the world, and was also granted trademark protection for Multi-Gene®, which the vaccine was now called.

Mr. McKenzie, the Managing Director of Ocker met a Dr. Washington at a recent health care conference in San Francisco, and mentioned to him the work done by Dr. Humphries. Dr. Washington expressed interest in the invention and mentioned that he was the Licensing Director for Sam Inc, a major American pharmaceutical manufacturer. He asked Mr. McKenzie to provide further details of the vaccine.

On his return to Australia, Mr. McKenzie wrote to Dr. Washington (Document 1) outlining Multi-Gene® and its advantages.

Dr. Washington replied expressing interest (Document II) and suggesting the parties meet during his forthcoming visit to Australia.

Mr. McKenzie accepted Dr. Washington's invitation to meet. Unfortunately his secretary inadvertently included in the letter of acceptance a copy of a report (Document III) prepared by Highflier & Co, a firm of financial analysts for Ocker, a copy of a memo from Dr. Humphries to Mr. McKenzie (Document IV), and an opinion from Winningham & Losingham, Ocker's patent attorneys, reviewing the offer of a license from the University of Ductonia to sell the vaccine in the United States (Documents V and VI).

In his memo (Document IV) to Mr. McKenzie, the inventor Dr. Humphries advised that he had accepted a senior position in the research department of Sam Inc. This was considered to be a "good news - bad news" situation by Ocker. The bad news was that Dr. Humphries was no longer available for assistance in negotiations, nor did Ocker have the carrot of possible future inputs from the inventor. The good news was that he could be expected to be an

advocate for Multi-Gene® at Sam in comparison with other competitive vaccines they might be investigating.

Following an exchange of facsimile messages, the parties ascertained that, rather than meeting in Australia, it was in fact mutually more convenient to meet in Doha and, in view of the time constraints, Sam proposed the following agenda:

1. Review of the opportunities for Multi-Gene®.
2. The possibility of the parties entering into a license agreement and the terms thereof, including:
 - (a) Definition of what is to be licensed; and
 - (b) Whether exclusive/non-exclusive, with/without sub-license rights, and territory to be covered.
3. If mutually agreeable terms can be reached, the financial arrangements that will apply, including:
 - (a) Form and timing of payments, including
 - Responsibility for manufacture of vaccines and conduct of trials;
 - Down-payment and royalty;
 - Fully paid up license; and
 - (b) Other relevant financial considerations.

DOCUMENT 1**OCKER LIMITED**

Dr. G. Washington
Licensing Director
Sam Inc.

Dear George,

Re: Multi-Gene® recombinant vaccine

It was a pleasure to meet you at the recent Annual Health Care Conference in San Francisco and, as arranged, I am now pleased to enclose for your review some non-confidential information describing the patented Multi-Gene® recombinant vaccine technology.

By way of background, Ocker now considers its future is as an early stage development biotechnology company focussing on immunotherapeutics that harness a person's immune system to prevent or treat diseases and disorders.

Ocker has an agreement with Dr. Humphries and the University of Melbourne to commercialize certain intellectual property and they have assigned the rights in the Multi-Gene® recombinant vaccine technology to Ocker. Ocker is now focused on product development and commercialization.

The Multi-Gene® recombinant vaccine is a platform technology that can be used in a variety of disease areas to produce a number of products or treatments. Indeed, it is beginning to make a contribution to the production of exciting new products.

The technology is an enhanced recombinant vaccine strategy that delivers immunotherapeutic molecules by means of co-expression of an antigen and a cytokine in a target host cell. The technology is set out in the attached drawing.

As you will be aware, vaccines work by improving the body's ability to mount an effective immune response to an antigen. An antigen is generally a foreign molecule, which may be derived from a virus, bacteria or other pathogen or molecule, to which the body's immune system will mount an immune response, such as the generation of antibodies or the activation of cytotoxic T cells. Cytokines are important molecules, which stimulate the immune system.

The Multi-Gene® recombinant vaccine technology delivers, as recombinant DNA, the antigen and a cytokine to stimulate the immune response and enable an appropriate defense to the antigen. The body's immune response to the antigen is enhanced by the co-expression of the cytokine with the antigen.

The technology uses a harmless virus to deliver the recombinant DNA vaccine to the recipient's immune system. When the recipient is infected with the virus, the antigen and cytokine are expressed in the virus infected cells and are then released and so trigger an immune response to the antigen and, as a consequence, the disease. Although not limited to any particular form of virus, Ocker has adopted fowlpox as the preferred delivery virus - it has the advantage of safety as it will infect but not proliferate in non-fowl recipients.

Ocker anticipates conducting Phase 1, 2 and 3 trials and entering licensing and strategic alliances to bring candidate vaccines to market. In this regard, please note Ocker does not have a collaborative agreement with GlaxoSmithKline's (GSK) venture capital fund. The latter has acquired a 5% shareholding in Ocker, but this does not give GSK any preferential position to acquire access or rights to Multi-Gene®.

Ocker is working towards demonstration of human efficacy of its tuberculosis vaccine as proof of the platform technology, and considerable progress has been made. The Australian Therapeutic Goods Administration (TGA) has given approval to conduct Phase 1 and 2 trials using vaccines made in Australia by a manufacturer approved by the US Food and Drug Administration (US FDA), and recruiting of patients with TB has just commenced. The trial will take place in Australia, and the outcomes will indicate safety, immunogenicity and clinical effectiveness, and the results can be used to obtain regulatory approval in other countries. Separately, a grant for US\$25 million has been awarded to a consortium (including Ocker) by the World Health Organization to develop a prophylactic Hepatitis B vaccine.

Our technology has good patent protection, and broad claims have been granted in the United States, Canada, and Australia directed to i) compositions for stimulating an immune response and ii) methods for producing such compositions. Enclosed for your convenient reference is a copy of the abstract and claims of US Patent No 5,999,310 in the name of B. Humphries. Corresponding applications are pending in other jurisdictions including Europe, Japan and China, and we are confident patents with similar claims will be granted in due course.

We are of the view that this is a very exciting opportunity. We are fully committed to commercializing Multi-Gene®, and have spent more than two million dollars, but need further capital (and perhaps a strategic partner) to aggressively take it further.

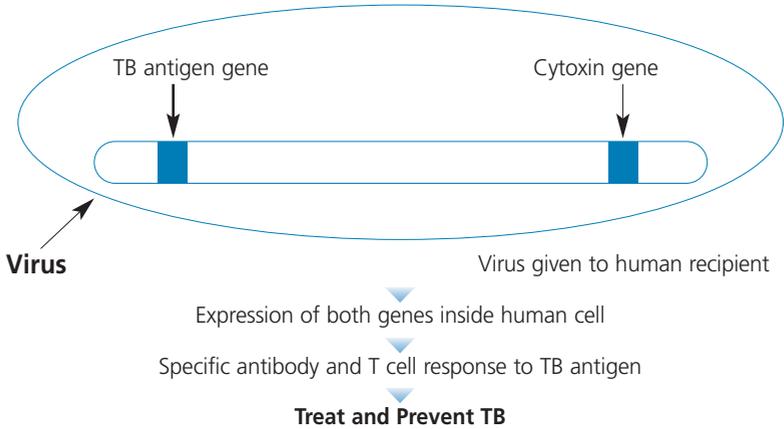
Once you have had a chance to review the technology, we look forward to discussing your interests in the Multi-Gene® technology.

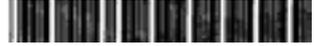
Yours sincerely,

Barry McKenzie

Multi-Gene® Technology – How It Works

Ocker Limited





US004722153

United States Patent [19]

[11] Patent Number: 5,999,310

B. Humphries

[45] Date of Patent: Feb. 2, 1999

[54] RECOMBINANT VACCINE

WO 8502200
A 5/1985 WIPO

[75] Inventor: B. Humphries

[73] Assignee: University of Melbourne

[21] Appl. No.: 10462

[22] Filed: June. 1, 1997

[30] Foreign Application Priority Data

July 4, 1996 [AU] Australia PH07212/92

[51] Int. Cl.⁶A61K39/12

[52] U.S. Cl. ...424/186.1;

424/188.1;424/199.1; 435/320.1

[58] Field of Search.....514/414,
816;

424/85.2, 255.1, 184.1, 88.5, 186.1,
188.1, 199.1, 93.21; 435/172.1, 172.3,
69.3, 69.1, 320.1

[56] References Cited

U.S. PATENT DOCUMENTS

4,631,191 12/1986 Dale et al. 424/186.1

FOREIGN PATENT DOCUMENTS

WO 8502200 A 5/1985 WIPO.....
C07H 21/04

[57] **ABSTRACT**

A recombinant vaccine comprises a vaccine vector, which incorporates a first nucleotide sequence capable of being expressed as all or a part of an antigenic polypeptide, together with a second nucleotide sequence capable of being expressed as all or a part of a lymphokine effective in enhancing the immune response to the antigenic polypeptide. The vaccine vectors include poxvirus, herpes virus or adenovirus, and the lymphokine may be an interleukin, tumour necrosis factor or gamma-interferon. The vaccine vector may express an antigenic polypeptide, which is foreign to the host vector.

2 Claims, 17 Drawing Sheets

5,999,310

What is claimed is:

1. A preparation for stimulating an immune response to an antigenic polypeptide in a human or animal host, comprising a vector for expressing an antigenic polypeptide in said human or animal host, said vector incorporating a first nucleotide sequence which is expressed as said antigenic polypeptide, together with a second nucleotide sequence which is expressed as a polypeptide having lymphokine activity and which is effective in enhancing the immune response in said human or animal host to the antigenic polypeptide when compared to the immune response in said human or animal host administered a vector incorporating only the first nucleotide sequence, wherein said polypeptide having lymphokine activity is co-expressed with said antigenic polypeptide in said human or animal host.
2. A method for the production of the preparation according to claim 1 which comprises the step of inserting into said vector a first nucleotide sequence which is expressed as an antigenic polypeptide which is foreign to the vector, together with a second nucleotide sequence which is expressed as a polypeptide having lymphokine activity and which is effective in enhancing the immune response in said human or animal host to the antigenic polypeptide when compared to the immune response in said human or animal host administered a vector incorporating only the first nucleotide sequence wherein said polypeptide having lymphokine activity is co-expressed with said antigenic polypeptide in said human or animal host.

DOCUMENT II**SAM INC**

Mr. B. Mackenzie
Managing Director
Ocker Ltd.

Dear Bazza,

Many thanks for your recent letter. I am pleased that you have written to me about Dr. Humphries' invention.

BCG is the most commonly used vaccine for tuberculosis and has now been in use for nearly a hundred years. As you would know, it is very effective in conferring protection on children, and also has the side benefit of protecting against leprosy. However, we recognize that its efficiency in preventing tuberculosis in adults varies dramatically in different parts of the world, and of course BCG is not recommended in America anymore, because it interferes with skin test screening for TB infection. The existing treatment for TB is usually three or preferably four specific (and expensive) antibiotics for a course of six months. This treatment is generally effective, although there has recently been the development of antibiotic resistant forms of tuberculosis.

The technology you have outlined is one which Sam considers interesting enough to warrant further discussion and a possible commercial arrangement, but we do see a number of potentially serious problems, in particular:

(a) Since the American National Institute of Allergy and Infectious Diseases produced its ground breaking "blueprint for tuberculosis vaccine development", there has been renewed interest in developing a new TB vaccine and treatment. As a result, the United States government is pumping money into TB vaccine development at a remarkable rate. In addition, hundreds of millions of dollars are spent by pharmaceutical companies much more experienced than Ocker in developing generic vaccine technology, and grabbing a slice of the TB action.

For example, we are aware of a well respected and experienced group in San Francisco who have developed a genetically modified BCG vaccine with enhanced efficacy. We have also heard of a Swiss company which has produced a vaccine using the expression of TB antigens in engineered bacteria such as salmonella and lysteria. It is also reported that GSK is well advanced with a vaccine using naked DNA, where the DNA encoding TB antigen is injected directly into the muscle or skin, and of course this is a cheap and simple way to introduce antigens. So your "multigene" technology is only one of a number available that could do the job.

(b) Vaccine development is a heavily congested market and we would not be surprised to find that other people had been working on similar or overlapping technologies. We expect you have had searches conducted of the prior art, and can tell us how strong your patent position is. Before proceeding, we would need your assurance that we would be able to use the technology in the US without getting into trouble with some other patentee.

(c) I am sure you are well aware of the risks associated with gene therapy. The insertion of genes into a person's genome is not something to be taken lightly. This type of technology received some bad press in the US after the death of a patient receiving gene therapy. These are serious risks, and although we carry good insurance, a gene therapy disaster could potentially ruin any company brave enough to get involved.

(d) On the subject of high risk, you have made reference to TGA approval and successful animal experiments. However, our experience leads us to believe that the likelihood of success is less than 10% in the transfer of the vaccine from the animal model to human recipient. You must appreciate the risks taken by a licensee are very high and any license arrangement would have to reflect this situation.

(e) A preventative vaccine against infection will be expensive and take many years to market. Preventative vaccines also carry high risk, because they are given to healthy people, often children and must be 110% safe. Of course, the treatment of TB infected patients is less expensive and quicker to get to market, but the number of patients is fewer and we could find that a competitor has developed a vaccine and then no one gets TB any more.

(f) Of course, TB is not a simple virus, like influenza. There are many unknowns and we don't believe that it will be as easy to get FDA marketing approval as for an influenza vaccine. As you will appreciate, we would need FDA manufacturing and marketing approvals.

I expect to be travelling during the next few weeks and could be in Melbourne so I propose we plan to meet. I will fax you next week with some dates and times.

I feel sure, Bazza, that if we both work at this, we will be able to come up with some sort of mutually acceptable deal. I look forward to sharing a cold "Fosters" in your fine sunny land.

Best regards.

Yours sincerely,

Dr. George Washington
Licensing Director
Sam Inc.

DOCUMENT III

HIGHFLIER & CO Blue Sky Analysts

Mr. B. McKenzie
Managing Director
Ocker Ltd.

Multi-Gene / Sam

Executive Summary

We refer to our recent meeting when we were instructed to carry out a review of the Strengths, Weaknesses, Opportunities and Threats (SWOT) for your Multi-Gene technology. We also refer to your advice on Monday that Sam may be visiting Melbourne in the near future and that, before completing our detailed Report, we should provide you as a matter of urgency with a preliminary executive summary of our review. This now follows and, while prepared with time constraints, we trust it will assist you in the discussions. Naturally, we are available to attend these meetings if required.

The Technology

Multi-Gene has a number of important strengths:

- It works! Well, it has worked in the clinical trials on animals infected with the TB organism, *Mycobacterium tuberculosis*, and it is reasonable to proceed on the basis that it has excellent prospects of working on people (the Phase I trials will of course be important in determining that it is safe).
- It can potentially treat and prevent the world's most widespread disease – almost ten million people a year develop active TB, and three million die from it.
- It is very clever - antigens and cytokines each can provide an immune response to disease or infection and, by doing both at the same time, enhance the effect. The resulting synergy means the likelihood of successful treatment is greatly increased (Note that it may also be suitable for a preventative or prophylactic vaccine - more blue sky).
- It has good intellectual property protection. The novelty of Dr. Humphries' invention has been recognized by the US and other Patent Offices around the world.

A helpful precedent - Biovac Holdings Limited

Biovac is a well known biotechnology company listed on the Australian Stock Exchange, and several points in particular are highly relevant to Ocker in reviewing its position and strategy at this time.

First, Biovac's corporate strategy has been, and is, to:

- identify early stage drugs that address large unmet needs, and
- move quickly to bring them to commercial reality, particularly by forming strategic alliances with partners who will take projects forward from discovery or early-stage clinical trial.

Biovac's strategy has been most successful. It was founded in 1985 to fund (in particular) the research and development of a drug to treat influenza using a neuraminidase inhibitor. It identified Big Pharma as the preferred partner, in 1989 a Heads of Agreement was signed and in 1990 the detailed agreement was signed.

In 1993, trials commenced and were completed at costs estimated at US\$2, US\$5 and US\$10 million (Phases I - III respectively). In 1998, applications were lodged in Australia, Europe and the US for approval from the regulatory authorities to manufacture, market and sell the influenza drug now called Bonza. During the financial year ending June 2000, approval was given and Bonza was successfully launched in US and European markets.

In the first year, sales were around US\$100 million, mainly in Europe and the US (though Bonza is now approved for sale in more than 40 countries, representing 85% of the world pharmaceutical market). For Biovac, this meant royalties of US\$10 million (this might have included an advance royalty or other payment from Big Pharma, but there would have been a (modest) royalty deduction for the research institution). It is not known what Big Pharma's margins are, but our best estimate is that 70% would be the net profit on sales, before corporate overheads including research and marketing expenses. Bonza's selling price is US\$100. Another interesting figure is that last year Biovac spent US\$10 million on R&D out of gross revenues of US\$15 million, which is much more than the industry norm of 10%.

Looking ahead, rapid market penetration is predicted, and sales for Bonza over the next four years are expected to reach at least US\$750 million, but this should be very conservative as regulatory approval is obtained in additional countries, as Bonza's label claims are broadened to include children and of course a drug is developed to prevent (in addition to treat) influenza. Even so, our analysis indicated that Biovac recovered the bulk of its costs in the first year of sales, and accordingly this has been a most successful launch.

Some helpful financials

We all know that a dollar in the future is worth much less than a dollar in the hand today, thanks to erosion caused by inflation and risk associated with technology commercialization. Therefore, as a matter of urgency, we need to have a realistic understanding of what Multi-Gene's present and future income streams and expenses are likely to be worth in today's dollars using Net Present Value (NPV, or DCF) calculations. In the meantime, and subject to discussion and revision, we have, on the back of an envelope, calculated an NPV of US\$125 million for this technology.

This sum does not allow for any lump sum or royalty payments to Ocker, and when (or if) you reach agreement with Sam (or another licensee) the NPV will be reduced accordingly. This sum does, however, reflect the assumptions that the Biovac outlays and margins are relevant; phases 1, 2, and 3 are completed by the end of years 1, 3, and 5; marketing commences in year 5 with two million doses sold increasing to 90 million in year 15; royalties are payable to Ductonia and tax is 33%. Importantly, the discount rate, the Weighted Average Cost of Capital (WACC) is a conservative 40%, reflecting the technical and commercial risks involved.

There are statistical techniques involving probability theory and certainty equivalents which can be very useful in determining the appropriateness of particular amounts. We will discuss this further at our meeting to review this draft executive summary so we can finalize our Report.

Sam Inc

Sam is well known, though in size it is well behind giants like Pfizer, GlaxoSmithKline and Merck, as well as Big Pharma. It has been some years since it successfully launched a major new drug, and we believe it is actively (and anxiously) looking for licensing opportunities. TB, and Multi-Gene technology is therefore, in our view, a major opportunity for Sam, especially as the market for TB has to be at least double that for influenza. We are possibly over-optimistic, but we do consider Multi-Gene has the potential to be a US\$1 billion-a-year drug, like Pfizer's Viagra (impotence), Lipitor (cholesterol) and Norvase (high blood pressure).

Finally, it is worth emphasizing that TB is not restricted to countries like Cambodia, South Africa or Zimbabwe. In the US alone there are currently around 15 million people with TB. New York alone spent US\$750 million between 1993 and 1996 to protect hospitals and jails. Assuming compliance with treatment, the average case cost is US\$25,000, and in the case of Multi-drug resistant TB, the cost can be as high as US\$250,000 per case.

For the reasons given, you could be in a very strong position, but in any event we consider you will be best served by seeking a fully paid up license following successful commercialization and, in our complete Report, we will expand upon and justify this conclusion.

HIGHFLIER & CO



DOCUMENT IV**OCKER LIMITED**

Memorandum

To: B. Mackenzie
From: B. Humphries

Bazza,

Having read the report from Highfliers, I can see why this ship is in such a rotten state. The report isn't worth the paper it is written on, let alone the thousands you paid for it.

Let me treat you to a few cold hard facts.

1. I have heard rumors of at least two competitive technologies – a listeria bacteria engineered with tuberculosis antigens and a naked DNA vaccine with multiple antigens. Once a vast sum is spent developing an alternative process, and it receives FDA approval, there is no hope for any of the others, and that includes us!
2. It is all very well to talk about asking for a lump sum once commercialization has been reached. I would remind you that it is only two years until our shares can be relinquished. As the capital of the company is being frittered away by all your expensive advisers like Highfliers, you are going to have trouble coming up with the US\$125,000, unless you get an upfront fee of some sort or unless you have a sufficiently watertight agreement so that the shares will be worth more than their redemption value. In my book, an upfront lump sum and royalty on sales is what we want.
3. What protection do we get if Sam fails to vigorously pursue the TB vaccine? Can we take it away and license or sell it elsewhere? Surely you would have been better off seeing a good licensing consultant rather than those phony artists with their probabilities and generalities and useless precedents.
4. Whatever you do, Bazza old guy, you will be doing it without me. I have accepted a very highly paid research position with Sam and I leave next month. My contract with them precludes my doing outside consulting, so you're on your own! This doesn't mean that I don't think the thing is going to work – I still think it is a great idea and that the process is OK, provided you get on with it and sell it, rather than sitting back commissioning useless and expensive reports.

Thanks!

DOCUMENT V**UNIVERSITY OF DUCTONIA**
54 Gene Way, Ductonia, CA, USA

Mr. B. McKenzie
Managing Director
Ocker Ltd.

Re: Recombinant Vaccine

Dear Mr. McKenzie,

It has come to our attention that your company is the owner of US patent No 5,999,310 in the area of recombinant vaccines. From our review of your patent it appears that you may require a license from the University of Ductonia (UD) to best utilize aspects of your patent. UD is prepared to offer to your company generous licensing terms for the valuable gene transfer system that is the subject of our Avipox patent.

Although many techniques are in use today for introducing genes into cells, researcher Henrietta Fouletta was the first to propose use of Avipox vectors as a means of transferring genes into cells. This technology is the subject of US patent 1,234,567 which is owned by UD and known as the Avipox patent. This viral gene transfer system is superior to existing technologies because the use of Avipox vectors overcomes many of the existing difficulties associated with viral vectors. As well as superior transfection rates, the use of recombinant Avipox vectors limits viral replication and removes concerns regarding viral infection.

UD was established in 1872 and has a well established reputation for excellence in the biotechnology field. It has an extensive patent portfolio focusing on gene transfer systems. However, UD's expertise lies in research, not in commercialization. We have a good track record in licensing our technology and we understand the complex royalty burdens on novel biopharmaceuticals. Therefore, UD is prepared to offer a non-exclusive license at a very reasonable rate, and three different licenses are possible depending on the use of the technology:

- Option 1. General vaccine use
License issue fee: US\$100,000; and
Royalty on net sales: 0.5%.

- Option 2. Single disease vaccine use
License issue fee: US\$25,000; and
Royalty on net sales : 0.5%.

Option 3. Research / trials / non-commercial use
License issue fee: US\$10,000.

All licenses offered above are limited to use in North America (USA, Canada and Mexico). However, UD also has corresponding patent rights for this technology in Europe, China and Japan, and is prepared to negotiate for a worldwide license if required. An option to extend or obtain a license for either Europe or the Rest of the World can be provided if needed – the financial arrangements for these Territories are the same as for North America.

On your request, we can provide you with our standard license agreement for your review and approval. Already over 50 companies have agreed to our standard license. We trust you will appreciate that the financial terms are modest and that it is not possible to vary the terms of the standard license agreement for a particular licensee.

Yours sincerely,

John Avery, Licensing Manager
University of Ductonia

DOCUMENT VI**WINNINGHAM & LOSINGHAM
PATENT ATTORNEYS AT LAW**

Confidential: Attorney-Client Privileged

Mr. B. McKenzie
Managing Director
Ocker Ltd.

Dear Mr. McKenzie,

Re: University of Ductonia, United States Patent No 1,234,567 (the Avipox Patent)

We refer to your recent letter requiring our opinion on the issues of whether:

- the Avipox patent is valid;
- Ocker (or any Licensee) will infringe the Avipox patent in the USA by making use of the Multi-Gene® technology; and
- a license from University of Ductonia is required.

It is our opinion that a Court would find the claims of the Avipox patent valid. This conclusion is based on our analysis of the prosecution file history and the prior art cited therein. As instructed, we have not conducted a separate prior art search. In particular, it is our opinion that the legal requirements for novelty and non-obviousness have been met. We have construed the claims according to the normal rules of construction. While we believe that the opinions expressed here are correct, when there is litigation there is always some degree of uncertainty.

Because the Ocker vaccine and method of preparation falls within the scope of the claims of the Avipox patent, either literally or under the Doctrine of Equivalents, it is our opinion that Ocker would be liable for patent infringement. Our preliminary advice is that this is also the position in other countries, but it would be prudent to confirm this before actually manufacturing or selling in other countries.

We have also reviewed the letter from the University of Ductonia to Ocker regarding a license to the Avipox patent. Please note that as the Avipox patent incorporates a product claim as well as a process claim, importation of the Multi-Gene® recombinant vaccine into the United States would constitute infringement under United States law. Accordingly, if Ocker (or any Licensee) wishes to manufacture, import or sell the Multi-Gene® vaccine in America, there will clearly be a need for a license to the Avipox patent for the next 15 years. We have reviewed the proposed terms and advise that we consider they reflect the standard university approach of offering a low cost, non-negotiable license on fair and reasonable terms.

Very truly yours,

Winningham & Losingham

C. *A Process for Reducing Copper Emissions*

Case History

Over 90% of the world's supply of copper ores occur as sulfide minerals, which are recovered in a concentrate that normally contains 20-30% of sulfur. Conventionally, this concentrate is melted and most, if not all, of the sulfur is emitted into the atmosphere as sulfur dioxide (SO₂). The United States Environmental Protection Administration has required adoption of State regulations on the emission of sulfur dioxide, and most States in America are requiring that no more than 10% of the sulfur contained in the ore concentrate be emitted as sulfur dioxide. Similar legislative requirements exist in Australia and Canada.

Three years ago Dr. Humphries, an Australian freelance chemical consultant with an extensive knowledge of the mineral processing art, discovered a process for utilizing a previously known chemical reaction for the purpose of reducing sulfur dioxide emissions during the refining of copper sulfide minerals. He assigned his rights to the invention to a newly formed Australian company, Ocker Limited, in exchange for a parcel of shares in the company. Ocker agreed, in a separate agreement, to repurchase the shares for US\$100,000 in two years time if Dr. Humphries wished to relinquish them at the time. Ocker filed patent applications covering the invention in the countries where Ocker considered the process most likely to be used. These countries also granted trade mark protection for CuprOz®, which was the name used when referring to the process.

Mr. McKenzie, the Managing Director of Ocker, met a Dr. Washington at a recent Conference of the Licensing Executives Society during a visit to the United States and mentioned to him the work done by Dr. Humphries. Dr. Washington expressed interest in the invention and mentioned that he was Licensing Director for Sam Inc, an American copper producer with about 20% of the USA market. He asked Mr. McKenzie to let him have further details of the process.

On his return to Australia, Mr. McKenzie wrote to Dr. Washington (Document 1) outlining CuprOz® and its advantages.

Dr. Washington replied expressing interest (Document II) and suggesting the parties meet during his forthcoming visit to Australia.

Mr. McKenzie accepted Dr. Washington's invitation to meet. Unfortunately his secretary inadvertently included in the letter of acceptance a copy of a report (Document III) prepared by Highflier & Co, a firm of financial analysts for Ocker, and a copy of a memo from Dr. Humphries to Mr. Mckenzie (Document IV).

In his memo (Document IV) to Mr. McKenzie, the inventor Dr. Humphries advised that he had accepted a senior position in the research department of Sam Inc, although he retained his shares in Ocker. This was considered a "good news - bad news" situation by Ocker. The bad news was that Dr. Humphries was no longer available for assistance in negotiations, nor did Ocker have the carrot of possible future inputs from the inventor. The good news was that he could be expected to be an advocate for CuprOz® at Sam in comparison with other competitive processes that they might be investigating.

Following an exchange of facsimile messages, the parties ascertained that, rather than meeting in Australia, it was in fact mutually more convenient to meet in Cape Town and, in view of the time constraints, Sam proposed the following agenda:

1. Review of the merits of the CuprOz, process.
2. The possibility of the parties entering into a license agreement and the terms thereof, including:
 - (a) Definition of what is to be licensed;
 - (b) Whether exclusive/non-exclusive, with/without sub-license rights, territory to be covered; and
 - (c) Continuous technical assistance by Ocker.

3. If mutually agreeable terms can be reached, the financial arrangements which will apply, including:
 - (a) Form and timing of payments, e.g.
 - Down payment and royalty;
 - Fully paid-up license; and
 - (b) Other relevant financial considerations.



DOCUMENT 1**OCKER LIMITED**

Dr. Washington
Licensing Director
Sam Inc.

Dear George,

It was a pleasure to meet with you at the recent gathering of LES (USA). On that occasion I mentioned to you CuprOz®, our proprietary process for recovering copper values from sulfide minerals with greatly reduced sulfur emissions.

I realize that upto now American copper producers have managed to keep the Environment Protection officials back because of their political connections and their reasoned arguments of the industry's relative remoteness from high population areas and the vital importance of cheap copper to the industrialized world. However, I believe the situation will change very soon.

You might have noted that prosecutions have already been threatened here in Australia where we have the same maximum 10% sulfur emission law that you do. I also saw a very recent report of a strongly worded speech given by your President to the Mineral Association of America in which he effectively said, "Clean up or come to court."

Our process offers an ideal opportunity for your company to prepare for the inevitable. By applying our lab scale work, we believe you could be on line in two years time with a plant that would satisfy not only the present 10% limit, but also the 5% limit, which is the subject of a bill currently before the Japanese Diet. To our knowledge there is no other process capable of meeting these limits.

Our process for recovering copper from sulfides of copper involves palletizing a mixture of the copper mineral and lime. The lime is present in an amount of from 80% to 100% of the stoichiometric equivalent of the sulfur content of the mineral and both ingredients are ground to form 200 to 400 mesh; pelleting the mixture and roasting it at between 400 and 600°C; and leaching the roast mixture with sulfuric acid to form a copper sulfate solution from which the copper may be recovered by conventional processes such as electrowinning, solvent extraction/electrowinning or cementation. A flow chart of the process is attached. The whole process works very well in the laboratory scale experiments that we have conducted and we have substantial know-how developed at this scale. We can show that the efficiency of the process is equal to that of your existing process and that gold and silver recovery from the tailings is also the same as is achieved with your conventional process.

The advantage of CuprOz®, is that by palletizing the mixture we can readily control the reaction rate, which is important if the temperature of the reaction is to be controlled as the process is exothermic. If the temperature goes too high, by-products are formed, which are not susceptible to leaching with sulfuric acid.

The lime fortunately acts as a natural binder and gives pellets capable of withstanding a roasting bed of up to 18 inches, which guarantees plant sizes of up to 100,000 tonnes per year to or from your own industry. A further substantial advantage that we have found results from the use of superstoichiometric amounts of lime relative to the sulfur content of the mineral; we can still keep sulfur emissions down while being able to provide all the sulfuric acid we need from the electrowinning cell and still have some over to sell, which at US\$6 per tonne is a useful by-product. Investigations in Australia indicate that the calcium sulfate tailings could also be sold for the production of gypsum board used in the building industry.

We have obtained patents in Australia, the United States and Canada, and expect applications to be granted in Chile, Peru, South Africa and Zambia, thereby covering the major producer countries of the world, and are confident of their breadth and strength. We have had no blind research alleys and so our know-how is relevant and valuable. The process would be particularly applicable in both Australia and Canada because of the relatively close juxtaposition of limestone deposits with the copper mines. All this indicates good sub-license prospects.

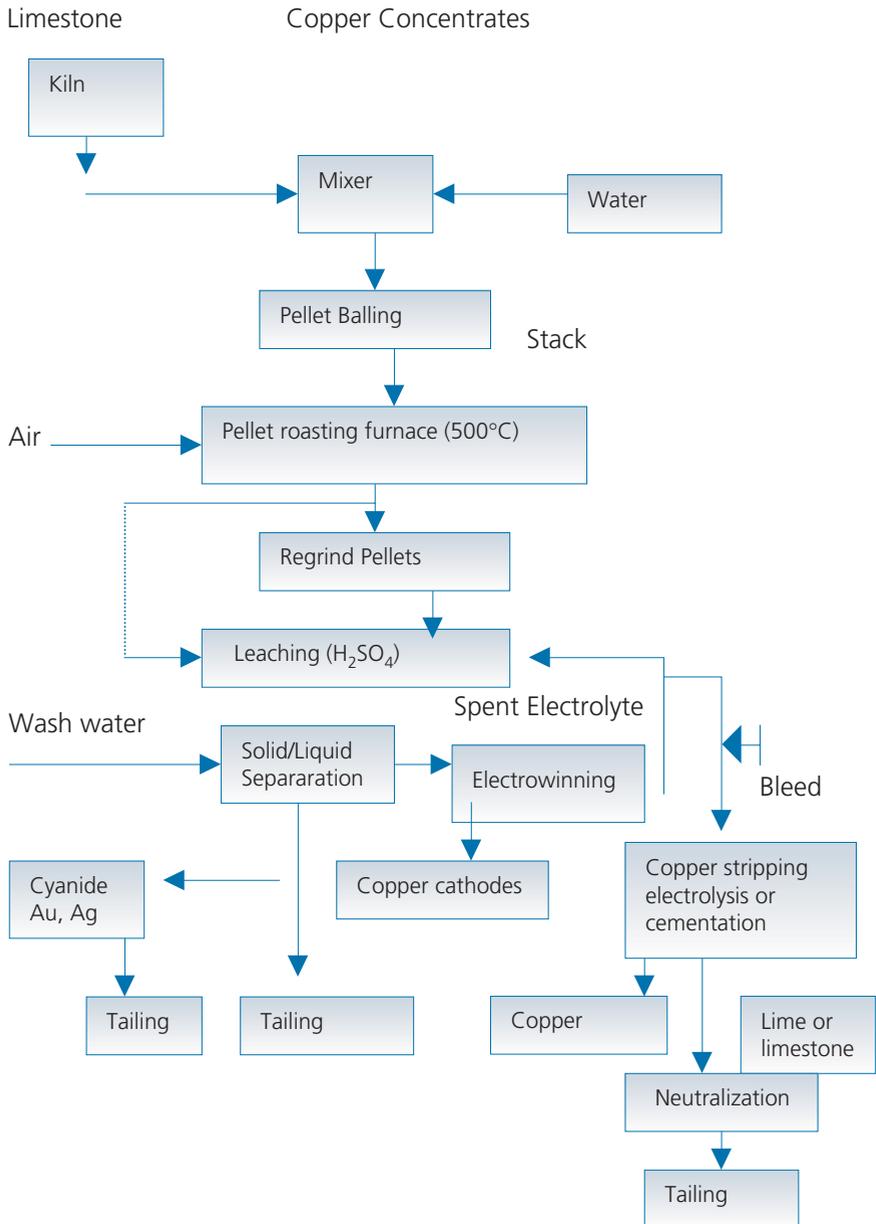
I firmly believe that if you come in on this with us, George, your company will be able to recoup its R&D expenditure on the process within five years by sub-licensing the process out. The environmental pressures are being felt by copper producers worldwide and if your company takes this process up now the whole industry will be beating on your door in a few years. On the other hand, you will have the opportunity to keep the door shut and so gain a significant competitive advantage. In any event, by being the first company to exploit this process you would have the opportunity to make some significant profits. As we have spent more than half a million developing the process we are fully committed to it. Only lack of capital prevents us from aggressively taking it further.

I look forward to hearing further from you and suggest that if your company is interested in entering into a relationship with Ocker we meet to work out a deal.

All the best,

OCKER LIMITED

Barry McKenzie
Enc. Flow Chart.



DOCUMENT II**SAM INC**

Mr. McKenzie
Managing Director
Ocker Ltd.

Dear Bazza,

Many thanks for your recent letter. I am most pleased that you have written to me about Dr. Humphries' invention.

I feel that you are unduly pessimistic about the pollution position; politicians, as we all know, are more talk than action. We do have an active pollution control program under way using stack scrubbing to reduce our emission to about 40% of the sulfur content of the mineral which is 35% improvement on our previous levels and this has satisfied our local authorities to date. The process you have outlined is one which Sam considers interesting enough to warrant further discussions and a possible cooperation agreement, however, we see a number of potentially serious problems. These are as follows:

- (a) We find it difficult to accept the novelty of Dr. Humphries' proposal. The reaction of lime and copper sulfide minerals to form calcium sulfate and copper oxides, thereby preventing the emission of the sulfur content of the ore as sulfur dioxide, is well known in the art. We are aware of work being done in Peru using a fluidized bed containing inert pebbles to bring about the reaction you have outlined.
- (b) You have made reference to the provision of know-how, however, you speak only of laboratory scale experiments. Our experience leads us to believe that an expenditure of at least US\$500,000 would be required to merely complete bench tests to optimize the process for our use here in America and to get to a pilot plant decision. A further investment of approximately US\$1.5 million would be required to develop a pilot plant before a decision to commercialize could be made. In this situation, it must be realized that the risks taken by a licensee are very high and any license arrangement would have to reflect this situation.
- (c) We believe that the disposal of the tailings, particularly the gypsum tailings, could cause substantial environmental problems, and

- (d) Your assertion that CuprOz® is the only one available which will do the job doesn't quite stack up. We have been offered a sulfur concentrator which would yield high sulfur solutions suitable for sale as a bleaching agent to paper manufacturers. We have not gone ahead as the process, like yours, is undeveloped and the promoters of this process wanted a heavy front-end fee. We were also put off by the currently depressed state of the paper industry but this could change drastically in the future.

I will be in Melbourne next month and suggest that we meet. I will fax you next week with some dates and times. I feel sure, Bazza, that if we both work at this thing we will be able to come up with some sort of mutually acceptable deal.

Kind regards,

Dr. George Washington.
Licensing Director
Sam Inc.

DOCUMENT III**Highflier & Co.
Financial Analysts**

To: Mr. McKenzie
Managing Director
Ocker Ltd.

Decision Analysis of Licensing Potential of CuprOz®

In accordance with your instructions, we have conducted an investigation of the strengths and weaknesses of your position as the licensor of Dr. Humphries' invention relating to the recovery of copper. We have subjected your company's situation to "Decision Analysis" to reveal the maximal potential of CuprOz® to your company in immediate dollar terms.

We accept your advice that current copper production methods involve the emission of sulfur dioxide levels that substantially exceed levels currently permissible under applicable government regulations. We further accept your advice that, while these levels are not being strictly enforced now, there appears to be a good possibility that they will be enforced shortly and that even more stringent limits could be enforced within the next couple of years.

We further base our assessment upon the assumption that Dr. Humphries' process will in fact reduce SO₂ emissions to below the 10% level and possibly below the 5% level. Our cost engineer calculates that the process does not offer significant cost savings but should be no more expensive than the conventional process. If your suggestion that there might be plant efficiencies that flow from Dr. Humphries' invention are correct, this would improve your position over and above that revealed by the present study.

Our investigations have revealed a number of salient facts regarding the present copper producing industry:

- (a) The world copper market is around US\$3 billion per year, indicating high stakes if the industry can be persuaded to adopt your process. It is axiomatic that pollution control measures will not be introduced by copper producers if they can be avoided.
- (b) Published figures suggest that current smelters could be modified to incorporate additional emission control equipment so as to meet the current 10% pollution requirements, and we set out hereunder a table of published estimates. At the time of these studies copper was selling at about 30c/kg. We are advised that these modifications would probably be inadequate to meet the 5% level.

TABLE 1

Source	Costs: Capital	Operating	Mean Total
	c/kg Cu	c/kg Cu	c/kg Cu
Industry Study	2.4	2.2	4.6
Dept. of Mines	3.4	3.3	6.7
White House	2.0 – 4.2	5.4	8.5
Dept. of the Environment	2.0 - 5.0	5.9 – 10.7	12.0

(c) The world annual production of copper for the last two years and the average price of those years was as follows.

	Annual Production	Average Price
Two years ago	8.90 million tonnes	US\$353 per tonne
Last year	8.36 million tonnes	US\$204 per tonne

The current price (London Metal Market) is US\$318 per tonne. Industry projections consider that copper prices will rise 5% annually in constant dollars. On top of a modest 5% inflation rate, this means actual copper prices should increase 10% annually from the present level.

- (d) The latest Annual Report of Sam shows a three-year budget figure for pollution control of US\$30 million. This indicates that there should be a genuine interest on the part of Sam to look at your process. It is also of interest to note that the depreciation figures in the Annual Report suggest that probably all of Sam's plant capacity of 275,000 tonnes per annum, spread over four smelters, will, starting in two years, need to be replaced over the following four years.
- (e) Our investigations indicate that the "industry norm" for a royalty payment on a fully developed process in the copper industry is about 0.6% per unit value of copper produced. It will be obvious that less should be paid for an undeveloped process. In fact we believe that a fully paid-up license will probably be demanded by a licensee in view of the substantial input that they will be required to make to turn your process into commercial reality, i.e. the licensee will want to pay a lump sum for the unlimited use of the process through its full life.

We do not think it can be said there is an industry norm in the copper industry for rights to use the trade mark CuprOz®. However, this right does have some value, as Dr. Humphries' invention is well known by this name, in its own right, as well as by taking advantage of Australia's reputation through the flotation process for the separation of minerals developed at Broken Hill in the early 1900s. (You will be aware that the flotation method became the most widely used method in the world for mineral extraction).

- (f) A variety of considerations are involved in analyzing the dynamics of a copper processing plant and a modest understanding of these is required to enable suitable "guesstimates" to be made for use in the "decision analysis." These factors include:

Copper Plant Dynamics

Capital costs - Market for sulfur (or H_2SO_4)

Operating costs - Source of limestone

Nature of ore deposit - Disposal of tailings

Plant size - Quality of resulting copper

Plant life - Pollution standards

Useful costs of the alternative types of plants are hard to come by. We are using a "guesstimate" to help begin to scope capital costs. It considers the installation of the known pollution equipment to a 100,000 tonnes per year plant would cost US\$30 million, that is equivalent to US\$300 per tonne capacity.

In terms of operating costs, the major factors are: reagents, utilities, personnel and maintenance. We have been unable to get useful estimates for operating costs for alternative types of plants and assumed equivalent costs.

The nature of the ore deposit is important in designing a plant. Significant here is the projected size of the ore deposit, which leads us to the plant size and plant life. The economics of scale can vary between the different types of plant, for example, hydrometallurgical (such as Dr. Humphries' process) v. pyrometallurgical (such as smelter).

Also figuring in the decision process for a copper plant is a market for the by-products. With the market for sulfuric acid at about US\$6 per tonne, a nearby industrial use of the sulfuric acid, because of transportation costs, could make a particular location of a copper plant economically viable.

An important consideration in the location of plant is the source of limestone. The process is sensitive to the price, availability and quality of limestone use. The disposal of the calcium sulfate tailings from the process could present an environmental problem. An engineering company we talked to feels that there is no problem in burying the calcium sulfate, although another engineering company feels it is a little more complicated than that.

Despite the confident predictions of Dr. Humphries, it is not a foregone conclusion that the quality of the copper resulting from the process will necessarily be equivalent to the quality of copper resulting from the smelter process when processed in large quantities.

Enforcement of pollution standards and any further modifications of pollution standards in the future will be critical factors to a copper producer. As mentioned earlier in this report, we have learned that many existing smelting plants cannot meet the already established sulfur dioxide standards.

With these factors in mind, we recommend that you seek from your proposed licensee a paid up lump sum based on a hypothetical royalty of 0.5% per unit copper produced, the money to be paid once a commercial stage has been reached. The calculations that follow in Table 2 are based on this recommendation. Our copper price calculations are based on the copper price forecasts given above and a start-up date in two years for commercial production in accordance with the accompanying Gantt chart. We advise that the smallest economic size of a smelter is about 30,000 tonnes per year and accordingly we have calculated the lump sum payments that could be expected for a plant of 30,000 tonnes per annum, 50,000 tonnes per annum and 100,000 tonnes per annum. The life of the plant will depend upon the amount of ore, the size of the plant and copper demand. We used expected lives of 5, 10 and 15 years.

As we have recommended a lump sum payment but based our calculations on a royalty figure, it is reasonable to apply a discount rate to take account of the fact that by receiving a lump sum your company has money to use earlier than it would have if it were in fact receiving a royalty. We recommend that a discount rate of 10% be applied, however, we have also made calculations based on a 15% rate.

It may be that you will feel our discount rates do not adequately reflect the risk involved. And, for the licensee of this process, this is relevant as a licensee can be expected to be risk averse rather than a risk seeker.

There are statistical techniques involving probability theory and certainty equivalents, which can be very useful in determining the appropriateness of particular amounts. We will discuss this further at our meeting organized for next week to review this report and plan our next actions.

Highflier & Co.

TABLE 2**PRESENT VALUES: PERSPECTIVE TODAY**

Certain flows of 0.5% royalties starting in two years - US\$ in millions

30,000 tonnes/yr. Copper Production

US\$ million discount rate	Life of Plant		
	5 years	10 years	15 years
10%	0.35	0.91	1.8
15%	0.33	0.86	1.7

50,000 tonnes/yr. Copper Production

US\$ million discount rate	Life of Plant		
	5 years	10 years	15 years
10%	0.58	1.5	3.0
15%	0.55	1.4	2.8

100,000 tonnes/yr. Copper Production

US\$ million discount rate	Life of Plant		
	5 years	10 years	15 years
10%	1.2	3.0	6.0
15%	1.1	2.9	5.7

TABLE 3**GANTT CHART FOR PROCESS DEVELOPMENT**

	Years				
	Last Two	Present	Next Three		
<i>Phase A</i> Bench Test Pilot Plant Decision	■				
<i>Phase B</i> Pilot Plant Testing			■	■	
Commercial Plant Decision					
<i>Phase C</i> Commercial Plant Sub -Licensing				■	■

DOCUMENT IV**OCKER LIMITED**

MEMO TO: B. Mackenzie
FROM: B. Humphries

I was surprised to read the report from Highfliers. It isn't worth the paper it is written on, let alone the thousands you paid for it.

Let me treat you to a few cold hard facts.

I hear strong rumors of at least two competitive processes – a super scrubber, and a process using our reaction together with the use of inert pebbles in a fluidized bed to control the reaction temperature. (Is this latter process an infringement of our patent?) Once a vast sum is spent developing any one of these alternative processes there is no hope for any of the others, and that includes us!

It's all very well to talk about asking for a lump sum once commercialization has been reached. I would remind you that I have the right to relinquish my shares for US\$100,000 in two years' time. As the capital of the company is being frittered away by all your expensive advisers like Highfliers and those patent attorneys, you are going to be hard put to come up with the US\$100,000 unless you get a up-front fee of some sort or unless you have a sufficiently watertight agreement that my shares will be worth more than their redemption value. In my view, a straight-out lump sum and royalty on production is what we want.

What protection do we get if Sam's don't push the thing anyway? Can we take it away and license or sell it elsewhere? If so, can we sell know-how, plant design, etc? Surely you would have been better off seeing a good licensing consultant rather than those phony artists with their "certainty what-nots" which are anything but certain.

Whatever you do, Bazza, you will be doing it without me. I have accepted a very highly paid research position with Sam and I am leaving next month. My contract with them precludes my doing outside consulting so I will not be able to be of assistance to you. This doesn't mean I don't think the process is a good thing – I do.

VII ILLUSTRATIVE WORKSHOP PROGRAM

One hour	An Overview of Intellectual Property Rights and Technology Transfer
One hour	Preparing to License Technology: Strategic implications for businesses, sourcing for holders of technology and accessing appropriate technology, due diligence
One hour	Preparing to License Technology: Obtaining information on unprotected technology
One hour	Accessing Appropriate Technology: Demonstration
One hour	Technology Transfer: Strategic business options
Two hours	Valuation of Technology: Assessment of technology packages Evaluating technology as a company asset Methods of Valuation
One hour	Overview of Main Contractual Arrangements for the Transfer and Acquisition of Intellectual Property: Licensing Agreement Franchising, Agency and Distributorship Contracts Joint Venture Agreements
One hour	Fundamentals of Licensing Agreements: Subject matter, scope, territory, exclusivity, period, improvements, financial considerations, etc... Specific practices and provisions concerning patents, trademarks, know-how
One hour	Fundamentals of Licensing Agreements: Applicable law Dispute settlement
One hour	Negotiation skills
One hour	Negotiation skills
Two hours	Preparation for Negotiation, Presentation and Organization for the Case Studies
One day	Case Study No 1: Negotiating and Drafting Licensing Agreements Review and End of Session
One day	Case Study No 2: Negotiating and Drafting Licensing Agreements Review and End of Session

Explanatory Note

Preparatory –

The first three days consist of a series of presentations on the subjects indicated to give the participants a grounding for the two days of negotiations to follow. They are therefore introduced to the basics of intellectual property and licensing, the importance of due diligence and the importance of searching patent information in this regard, the various tools for valuing technology, an overview of the various ways in which technology can be transferred followed by the fundamentals of a licensing agreement. Two sessions are then devoted to discussing some tips and pointers with respect to negotiating. With this background, the participants have a good knowledge of the key issues and are well prepared to embark on their negotiating exercise.

Negotiating Exercise –

The participants are divided into teams of licensors and licensees. Ideally, each team would have about five participants. They would each assume a role. One would be the leader who would primarily be responsible for conducting the negotiation. Others would assume the roles of, for example, the financial controller, the legal officer, the accountant, the technical officer who would be responsible essentially for those specific aspects of the agreement and contribute where relevant to the negotiation. The teams would be handed the case study and would be expected to read and prepare for the discussion of the next morning.

On the day of the negotiation exercise, they would assemble and spend the morning discussing with the team members their objectives and strategy for the negotiation. During this exercise, they would use the Heads of Agreement document to establish their preferred outcomes from the negotiation. They would also anticipate the expectations and objections of the other party and prepare for them. They should try to work on each item in the Heads of Agreement document so that the fundamental issues would have been discussed.

In the afternoon, they would go into the negotiation and the leader would begin the discussion and take the team through the Heads of Agreement document, referring to his specialized teammates for input on their respective areas. Both teams will strive to achieve a “win-win” agreement. Once they reach an agreement they will sign the document.

Once all teams have reached deals that are satisfactory, or it is recognized that no agreement is going to be reached, they will be called upon to present to all the participants of the workshop where they began and where they ended. That is, what was the agreement that they would liked to have had, the ideal scenario, and did they achieve that ideal. If not, what was the deal that they made and that they were happy with. What elements they conceded and what elements they gained. What did they learn from this process. Once each group of licensors and licensees have presented their deals the participants will be able to appreciate a wide variety of deals consisting of a variety of differing terms and conditions and begin to appreciate that there are multiple situations which can all still be “win-win” agreements.



SUGGESTED FURTHER READING

NEGOTIATION

Fisher, R., Ury, W. and Patton B. (ed.), *Getting to Yes: Negotiating Agreement Without Giving In* (United States of America: Penguin Books, 1991), ISBN 0-14-01.5735-2.

Lewicki Roy J., Saunders David M., Minton John W. and Barry Bruce (eds.), Fourth Edition, *Negotiation: Readings, Exercises and Cases* (New York, McGraw-Hill Irwin, 2003), ISBN: 0-07-112316-4.

LICENSING

Brunsvold, G. Brian and O'Reilley, P. *Drafting Patent License Agreements* (BNA Books, Hardcover, Fifth Edition, 385 pages, 2004).

Gabrielides, J. and Squyres, M. *Licensing Law Handbook* (Chicago: West Group, 2001), ISBN 0-8366-1470-4.

Goldscheider, R. *The New Companion to Licensing Negotiations: Licensing Law Handbook* (Deerfield, IL: Clark Boardman Callaghan, 1996), ISBN 0-8366-1055-5.

Goldscheider, R. (ed.), *The LESI Guide to Licensing Best Practices: Strategic Issues and Contemporary Realities*, (Wiley, Hardcover, 528 pages, 15 May, 2002) ISBN: 0-471-21952-5.

Mahoney, Richard T.(ed.), *Handbook of Best Practices for Management of Intellectual Property in Health Research and Development* (Oxford: Centre for Management of Intellectual Property in Health Research and Development, 2004).

Megantz, Robert C. *Technology Management: Developing and Implementing Effective Licensing Programs* (New York: John Wiley and Sons, Inc., 2002), ISBN 0-471-20018-2.

Parr, R. L. and Sullivan, P. H. *Technology Licensing: Corporate Strategies for Maximizing Value* (New York: John Wiley and Sons, Inc., 1996), ISBN 0-471-13081-8.

White, E. P. *Licensing: A Strategy for Profits* (Alexandria: Licensing Executives Society, 1997), ISBN 0-9656401-0-8.

PATENT INFORMATION

Derwent Scientific and Patent Information *Global Patent Sources, An Overview of International Patents* (London: Derwent Information, 1999), ISBN 0-901157-71-6.

Van Dulken, Stephen. (ed.), *Introduction to Patents Information* (London: The British Library, 2002), ISBN 0-7123-0862-8.

VALUATION

Pitkethly, Robert. *The Valuation of Patents: A Review of Patent Valuation Methods With Consideration of Option Based Methods and the Potential for Further Research* (Article from *Intellectual Assets: Valuation and Capitalization*) (Geneva: United Nations Publications, 2003), ISBN 92-1-116857-0.

Razgaitis, Richard. *Valuation and Pricing of Technology-Based Intellectual Property* (New York: John Wiley and Sons, Inc., 2002) ISBN 0-471-25049-X.

Razgaitis, Richard. *Dealmaking Using Real Options and Monte Carlo Analysis* (Wiley, 08 August, 2003), ISBN: 0471250481.

Smith, Gordon V. and Parr, Russel L. *Valuation of Intellectual Property and Intangible Assets, 3rd Edition* (New York: John Wiley and Sons, Inc., 2000), ISBN 0-471-36281-6.

NEW PRODUCT DEVELOPMENT

Trott, P. *Innovation Management & New Product Development* (Delhi: Addison Wesley Longman (Singapore) pte. Ltd., 2000), ISBN 81-7808-140-7.



World Intellectual Property Organization (WIPO)

WIPO is an intergovernmental organization in the United Nations system of organizations. It seeks to ensure that the rights of creators and owners of intellectual property (IP) are protected worldwide and that inventors and authors are recognized and rewarded for their ingenuity.

WIPO's mission is to promote, through international cooperation, the creation, dissemination, use and protection of works of the human spirit for the economic, cultural and social progress for all humanity.

WIPO encourages, *inter alia*, the integration of IP management into national development policy and into the business strategy of enterprises. Thus, it contributes to national economic development, particularly in developing, least developed and transition economies, by promoting the effective use of the IP system for strengthening their technological capacity and improving their competitiveness in domestic and export markets.

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International Trade Centre (ITC)

ITC is the technical cooperation agency of the United Nations Conference on Trade and Development (UNCTAD) and the World Trade Organization (WTO) for operational, enterprise oriented aspects of trade development.

ITC supports developing and transition economies, and particularly their business sectors, in their efforts to realize their full potential for developing exports and improving import operations.

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- ▶ Human resource development
- ▶ International purchasing and supply management
- ▶ Needs assessment, program design for trade promotion

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