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PANEL: INTERNATIONAL OFFSHORE TECHNOLOGY TRANSFERS: Successful Innovation Through Global Collaborations For Mutual Benefit C. Nielsen, Winstead P.C. and B. Pollett, Technip

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Abstract

This session will provide an opportunity to hear a candid discussion of the current restrictions on technology transfers affecting the oil and gas industry in offshore exploration. The discussion will focus on the interests and needs of the different stakeholders, operators and service companies alike, in the current climate of record setting operations. The panel will discuss the different considerations for allocating and mitigating risks associated with the use of new technical solutions. In addition, current issues related to intellectual property rights will be addressed as this industry moves into new frontiers (e.g., China, India and West Africa) and seeks to engage a new types of clients including government owned entities.

INTRODUCTION

Offshore technology transfers are increasingly common in the current business environment as there is a trend to share technology with others for mutual benefit. Legal mechanisms are available that will safeguard business objectives when stakeholders align to develop the technical advancements. However, the key to successful innovation sharing is that the collaboration be beneficial for each participant. Sharing intellectual property rights often helps a business expand its current operations into new markets, more effectively and with greater ease. However, licensing can be complex and the material terms of an agreement often encompass issues beyond the basic technological focus such as tax implications and governmental restrictions. Limitations in interests and use imposed by various governments can cloud what might appear to be a simple transfer in technology. As a result, offshore technology transfers often require considerable planning. Moreover, the technology transfer agreement must take into account the objectives and concerns of each stakeholder participating in the transaction.

Offshore Technology Transfers of Intellectual Property Rights

A key challenge for oil, gas and petrochemical businesses is to remain profitable in an ever increasingly global economy. Offshore oil and gas exploration can offer viable streams of revenue from existing assets. More often than not, however, new technology is required to facilitate and exploit new opportunities in various markets. Innovation has become crucial, and is now recognized as a valuable asset in today's global economy. Intellectual property rights that result from innovation, however, are territorial, and are procured and enforced through the policies and procedures of different intellectual property systems. In many jurisdictions, intellectual property rights must be secured before novel technology can be revealed, used or shared. Once protected, a business can leverage its asset to gain and retain its competitive advantage.

Different legal systems throughout the world recognize, protect and limit rights in intellectual property in a variety of ways that can make offshore technology transfers a risk laden and expensive proposition, especially, if a business seeks to exchange technology outside of its domestic market. Moreover, even when products and services are only marketed domestically, offshore technology transfers from outside a domestic market can influence the value of intellectual property rights in a local market. In fact, "differences in national intellectual property rules may cause economic activity to shift from one jurisdiction to another so that a higher-protection rule will be undermined by lower-protection rules of other jurisdictions."¹

Thus, as the various regulatory and governmental bodies address trade policy among the nations, governmental leaders remain focused on the concerns of intellectual property rights. Likewise, stakeholders are keenly aware of the impact of intellectual property rights. As a result, recently, stakeholders are creating strategic alliances to advance business objectives and for financial gain in new markets and territories. These stakeholders include operators, service companies, contractors, suppliers, and technology licensing companies, together with its employees, management and shareholders, and the various governments and their citizens. The type of relationship and agreement between the stakeholders depends on a variety of factors, not the least of which is the amount of bargaining power a party may have. But whatever it may be, the agreement between parties must be beneficial to each company and its objectives. No party must feel that the other has a better deal and/or that the agreement is unfair. Successful technology transfer occurs when each party perceives the other as a partner in a profitable collaborative process.

Perspectives of the Stakeholders in Offshore Technology Transfers

There are several options available to businesses who want to have and/or use an intellectual property asset to gain and/or retain its competitive edge.² First, the business can generate the technology in-house. Second, the business can create a start-up or spin-off business to develop IP in a focused manner. Third, a merger or acquisition of another business having the IP can be made. Finally, a business can team up with others and share its IP assets for mutually beneficial results.²

In the offshore industry, there is a trend for business and enterprises to share technology with others for mutual benefit. The legal mechanisms used to carry-out such objectives include joint ventures, co-development projects, arms-length licensing or creation of a strategic alliance. Businesses enter into collaborative relationships in an effort to do "everything legally and ethically possible to improve their bottom line and sustain or increase profits."² As a result, because technology is an important driver of economic growth, when stakeholders align to develop and share offshore technology, the impact on the economic, financial, and social well-being of each stakeholder is often profound and the overall growth of the industry enriched.

Similarly, research institutions and other innovative enterprises desire economic gain from efforts made to innovate and/or modify an existing offshore technologies. In these instances, economic gain depends in large part on the ability of other parties to utilize the technology in the offshore industry. The economy and society benefit when the skills generated through the use of such advancements are shared with others. The distribution of knowledge creates a broader base for continued technological advancement in the offshore industry. Therefore, operators, service companies, contractors, suppliers, technology licensing companies, and various governmental institutions often work together to establish relationships for the sole purpose of encouraging the development and application of offshore technology and related technological advancements that will benefit the economy and society overall.

International Offshore Technology Transfers: Opportunities and Benefits

As the offshore energy industry transforms mature fields and frontier areas, new applications of old technology and new developments present new opportunities for growth and create new markets, generating revenues from new customers who benefit from the technology used in company operations. Development of new technology has become a vital component for energy companies in improving its competitive position in the marketplace. Because competition is often on the basis of price alone, the oil and gas industry relies on new technology to improve the extraction of raw materials through improved processing and new, more efficient equipment. New technology is also used to commercialize products and improve management control and communication.

Investing in technology development is risky and expensive as there are many uncertainties linked to innovation. While an innovator often has the advantage of technological independence and can invent according to its own needs, the business focus and/or capacity of the innovator to use and adapt technological advancements often mandates the involvement of different players. Hence, in many instances, companies rely on both in-house innovation as well as technology purchased or licensed from others in order to make technical improvements to products, processes and services.

The sale and purchase of the rights in and to a patent, or of the permission to use patented technology or know-how, takes place through a legal relationship, contractual in nature, between the owner of the intellectual property rights and the acquiring party. The nature of the relationship and the type of legal arrangement is typically the result of technology transfer negotiations, the success of which depends on a wide variety of factors.³ These factors include the complexity and level of the technology, the availability and cost effectiveness of alternative technologies, and price. Other influential factors center on the needs of the recipient and/or the technological capacity of the transferee and its ability to use and adapt the purchased technology, and whether technical support and training is required. Further, the type of relationship and agreement envisaged depends on whether it is long-term, short-term or one-off purchase.3

Bargaining power also influences the agreement and relationship and the parties' ability to negotiate a mutually beneficial agreement.³ A technology transfer agreement may involve large multinational corporations, small enterprises, the public sector or any other type of entity or individual. The negotiating power of a party depends on its size, technological capacity, the demand for the technology and the number of competitors. What is critical to a successful outcome, however, is that "both parties perceive the agreement as beneficial to their company and/or institution. Neither must feel that the other party has obtained a better deal and/or that the agreement is unfair. The secret to the success of technology transfer agreements is that each party perceives the other as a partner in a fruitful collaborative process."³

Strategic alliances are useful for technology transfers between companies because a business can meet its objectives while maintaining flexibility in adapting to new technological advancements. Such alliances can help "pool expertise, enter new markets, share financial risks and get products and services to market faster."³ That being said, alliances can be complicated and difficult and will exist only as long as they are advantageous to the parties involved. "The concept of gaining a marketplace advantage by teaming up with another company whose products and services fit well with one own is being adopted by an increasing number of business."³ Often an alliance is a prelude to a longer-term relationship of a joint venture or merger/acquisition. In any event, to protect its own interests, each party must adequately address intellectual property issues.

Intellectual Property Transfers: Advantages & Factors That Influence Choice

The ultimate objective of an owner of intellectual property rights is to exploit its rights for direct financial gain or to further other business objectives in a manner which maximizes its value.⁴ However, the procurement and/or acquisition of intellectual property rights (patents, trade secrets, copyrights and trademarks) does not guarantee that proprietary technology will be used, exploited or generate a financial gain. Therefore, while some intellectual property owners might use a "go-it-alone" strategy, many others believe this poses the greatest risk of financial failure. As a result, technology transfers are common in effectuating the commercialization of new products or services, and to improve on existing product or process.

While a number of different types of "sharing" arrangements are available, there are two basic mechanisms used to transfer intellectual property rights: an assignment and a license agreement. An intellectual property owner may assign or license its rights in and to the technology. Further, owners often purchase or cross-license additional complementary intellectual property rights needed to commercialize its own proprietary technology.⁴

An assignment of intellectual property rights involves the transfer of the ownership of a patent or other intellectual property rights from the owner/assignor to an assignee.⁵ Assignment means that the former owner is permanently divested of its ownership. An assignment is typically appropriate where the owner prefers to receive a lump sum price at the time of assignment rather than collect royalties. Assignments are often made rather than risk a technical, market, or regulatory failure, or the entry of a competing product that reduces or erodes royalties that might otherwise been paid. Further, capital lump sums can be extremely advantageous to the assignor who has a need to raise capital.

Hence, a patent assignment is a conveyance of title that is permanent and irrevocable. In many jurisdictions, to effectuate the transfer, the patent laws require that a written instrument of assignment be made and recorded with the patent office. The payment of the lump sum may be in terms of a license contract. However, a patent assignee who fails to pay royalties does not risk the loss of rights in and to the patent because the assignee owns the patent unconditionally. The failure to comply with royalty obligations, while actionable at law for damages of non-payment, does not put at risk the intellectual property rights irrevocably conveyed and transferred. This is the reason that it is undesirable to assign a patent for future payments.

A license is merely permission by the owner of the intellectual property rights to use proprietary technology. "When permission is given, a license has been granted."³ Under a license agreement, a licensor does not transfer ownership. A license agreement is a formal, preferably written, promise that is legally binding on the licensor. Typically, the licensee receives a right to make, use or sell

technology covered by the intellectual property rights in exchange for a royalty payment. For a license to be effective, the licensor must be the owner of the intellectual property rights or have authority from the owner to grant the license. Further, the license should specify the intellectual property rights granted to the licensee, and provide for some type of consideration by the licensee. Also, in many countries, patent laws require that the license agreement be presented to, registered or recorded with the patent office in order to be effective. The government then recognizes such licensee as the transferee or holder of the intellectual property rights. At a bare minimum, the intellectual property rights must be at least eligible for protection under the laws of the subject territory.

Many companies have a portfolio of patents, trademarks, know-how and other IP assets that can be licensed and there are many reasons to do so. Some owners have the rights in and to the technology, but do not want to be involved in the manufacture or marketing of products, particularly, where others have greater distribution capabilities, local knowledge and management expertise. A licensee may be in a better position to conform to local laws and regulations and other adaptations required for entering a foreign market. Other owners simply cannot afford to manufacture or market new products or services in a specific manner, time or region. Often, licensing allows the intellectual property owner to penetrate a market it would otherwise not be able to serve. In short, licensing intellectual property rights often helps businesses commercialize and expand current operations into new markets, more effectively and with greater ease.

Licensing agreements provide other advantages such as a means to acquire improvements, know-how and related products developed by the licensee during the term of the agreement. The license agreement can provide some degree of control over new developments and the direction taken in the evolution of product developments, particularly, where interoperability is important.² A license agreement can turn an infringer or competitor into an ally or partner where costly litigation is avoided or settled.² This is particularly helpful in instances where the outcome is uncertain. While intellectual property rights may be exploited to produce a single product, the acquired rights may be useful to unrelated goods or service or other fields of use, and can be an excellent source of revenue, adding to a companies' net worth.

For a licensee, a license agreement can increase revenues and profits and enlarge a market share through access to technology already established and available. While a company may not have the resources to invest in research and development, technology may be available through licensing that would otherwise be difficult to obtain. Quick access to new technological developments may be the best way to maintain or develop a market position, cost effectively. In-licensing coupled with a current technology portfolio can help generate new products and services, and market opportunities.²

There are, however, disadvantages and risks associated with licensing intellectual property rights that should not be ignored. For the licensor, there is a risk that "doing-it-yourself" could generate better profits than outsourcing. A license adds a layer of expense to the bottom cost of a product or service. Further, a successful licensing arrangement often depends on the abilities and resources of the licensee. A licensee may need technical assistance or additional technical data to reach the market goals which may prove to be expensive to the licensor. Often when the technology is not fully developed, the issue of ownership in and to the improvements must be addressed and a compromise reached. In worst cases, a licensee can become the licensor.²

Noteworthy, in many instances, the licensing of intellectual property rights must be reviewed and approved by governmental regulators to determine if the arrangement is anti-competitive or collusive in nature. The license agreement should always clearly define and contain a complete description the technology licensed. Licenses can be complex and material terms should be reviewed by competent legal counsel to avoid access damages in the event of a breach and possible inadvertent equitable relief. With proper preparation and legal advice, however, licensing intellectual property rights provides a wonderful business tool that can benefit the parties involved and the society as a whole.

Offshore Technology Transfers: Tax Implications

The tax implications of a technology transfer can be a significant factor for consideration by stakeholders because, in many jurisdictions, the transfer of intellectual property rights is subject to certain taxes and/or a change in tax status based on a transfer. For example, how the transfer is characterized is important to how the property is treated under the tax code, i.e., a capital or quasi-capital asset, ordinary income, etc... Further, tax implications do not just effect technology transfers outside the organization, but can influence whether there can be a transfer between affiliates within the same organization, especially if the transaction is between affiliates in different countries. In addition, transfer pricing, withholding taxes, tax treaties together with research and develop financing arrangements may complicate what it appeared to be a simple offshore technology transfer of intellectual property.6

Offshore Technology Transfers: Exporting Considerations

Accompanying the decision to export are the challenges and risks involved with a substantial investment of financial, managerial and production resources. Properly viewed, exporting should be considered a long term business investment rather than a short-term profit venture. Exporting requires careful planning and execution, and part of the planning includes the anticipation and foresight of the different intellectual property issues.⁷ For example, whether a trademark is recognized and valued by consumers in the export market and the extent to which there is competition from similar or knock-off products will affect product pricing. Similarly, product marketing will rely strongly on the brand image which can be imitated and could go unprotected against imitators and/or competitors. Sometimes a decision to participate in exhibitions and conferences may be influenced by the lack of filing for patent protection of inventions or designs. An early disclosure of a patentable invention can result in lost novelty that may preclude a subsequent application for patent rights on the invention.

As discussed above, intellectual property rights enable enterprises to access new markets through licensing, franchising and/or the establishment of joint ventures or other contractual agreements with other companies. Partnerships can be established for production, marketing, distribution and/or delivery of goods and services. Moreover, holding patent rights of the innovative aspects of a product is often useful in raising funds from investors, venture capitalists and/or banks. Intellectual property rights provide greater bargaining power when there is a desire to in-license technology from others. On the other hand, failure to consider intellectual property may result in losses to imitators. Without protection of intellectual property rights, stopping imitators is often very difficult or simply unavailable, resulting in loss profit that may be substantial. Often intellectual property rights strengthen a business' position in export markets and stops knock-offs and imitations. If the product is successful, it is likely that another business will sooner or later produce and market a similar product to compete. Hence, intellectual property rights often play an important and crucial role in various aspects of exporting.

Common pitfalls of exporting include the failure to protect the intellectual property rights in different territories. Protection of intellectual property rights is not universal, nor are the laws and procedures for the protection of such rights Intellectual property rights are the same worldwide. territorial, and therefore, the rights are protected on a national or regional level. While applying for patent and/or trademark rights in a number of countries worldwide is expensive, the application process can be streamlined by applying for protection via regional systems such as African Regional Industrial Property Office (ARIPO), the Benelux Designs Office, the Eurasian Patent Office (EAPO), the European Patent Office (EPO), the Office for the Harmonization of the Internal Market (OHIM) and the like. Other systems of international protection include the Patent Cooperation Treaty (PCT), the Madrid System for the International Registration of Marks and the Hague System for the International Registration of Industrial Designs. The PCT enables applicants to initially apply for patent protection currently in over 135 countries via a single application. Entry in various nations is delayed for 30 or 31 months and can save significant time and money. Noteworthy, many treaties require that applications be filed within a "priority period" and failure to do so can result in lost patent rights.

While innovations and creativity are at the heart of most successful businesses, "ideas by themselves have little value."⁸ Ideas must be developed, tested and later marketed. Hence, intellectual property rights, patents in particular, can be crucial to producing competitive products and services and increasing profit margins. Patents provide exclusive rights to use and exploit the invention for a limited duration, typically for twenty years from the date of filing the patent application. By obtaining the exclusive rights to make, use and sell an invention, the patentee can prevent others from commercializing the invention and reduce competition; thereby making way for a strong market position where the

patentee can become a pre-eminent player. Having invested considerable time and money in developing new products, under the umbrella of exclusivity, the patentee can earn a higher return on its investment. If the patent owner chooses not to exploit the patented technology, as discussed above, it may sell or license some or all of the rights in the invention. Patents provide increased negotiating power, and this is particularly true when there is considerable interest in the technology claimed. Overall, patents can improve or create a positive image of the business and be useful in raising funds or to demonstrate a high level of expertise.

On the other hand, there are reasons to avoid patenting including cost and/or issues of patentability. Further, a patent has a limited term and scope. Protecting trade secrets is a viable alternative for inventions that cannot be reverse-engineered. In addition, many companies prefer to use "defensive publishing" as a strategy. Defensive publishing requires a disclosure of the invention in a publication to avoid another from patenting it. Hence, some degree of freedom to operate may be provided. However, this type of strategy is not used very often in cases of break-through or core technologies that are likely to be central to the strength of the business.⁹

Unfortunately, many exporters think that intellectual property protections are universal between nations. However, as mentioned above, rights in and to intellectual property are territorial and a government will typically only recognize its own grant of exclusivity in enforcing intellectual property rights. Further, the laws and procedures for protection of these rights are not the same worldwide. For example, applying too late for intellectual property rights in an invention, could cost much needed protections provided in different jurisdictions. In certain countries, publication of a technical article prior to filing an application for patent bars an applicant from obtaining a patent. Similarly, disclosing information on a product innovation or new design to a potential partner or other third party without a confidentiality agreement in place can result in lost patent rights. The reason is simple: many countries require absolute novelty of the invention when applying for a patent grant.

In a number of countries, patents are granted after the main criteria for patentability (such as novelty, inventive step, non-obviousness, applicability, usefulness) have been satisfied. On the other hand, in other countries, patent applications are not examined as to substance but only informalities. Some countries will automatically examine a patent application and in other countries, examination must be requested.

Further, even if a patent application has been filed domestically, applications for protections in targeted exporting countries must be procured within the priority period, which is typically one year from the filing of the original application for a patent or six months for an industrial design. Failure to apply during the priority period results in the inability to obtain protection in such countries, thus making the invention available for others to copy and design freely.

Moreover, exporting products without first checking whether they are infringing the intellectual property rights of others can prove to be costly. Failure to consider the patent rights of others could result in large losses in revenue and even an injunction against making using or selling a product or service in a given territory. This is true even if the product to be marketed is subject to patent protection. As a result, many companies, at an early stage, seek to secure "freedom to operate," a level of assurance that commercial production, marketing and use of the product, process or service does not infringe the rights of others.⁹

A Freedom to Operate analysis starts by searching for issued or pending patent applications related to the technology to be marketed.⁹ If based on this analysis, one or more blocking patents is uncovered, a company must decide how to proceed. Provided the investigation was prepared early in time, the relevant technology may be available for purchase or licensing, or the owner may be amendable to cross-licensing. If not, the possibility of a design around should be investigated in order to avoid infringement.

Country and Regional Focus

Transactions in the oil and gas industry are not the same as basic retail market transactions. Governments take into consideration many public concerns including national security, social welfare, and national pride. As a result, such considerations can effect how a government deals with energy transactions as compared to other economic sectors.¹⁰ Below we provide some examples of such governmental considerations for different nations:

Brazil

Brazil is a party to the Paris, Berne and Geneva Conventions and the Patent Corporation Treaty. In 1996, Brazil implemented an industrial property law that introduced some benefits to the intellectual property regime, but excluded some fields from patentability and requires some compulsory licenses and restricting patent holder rights.¹¹ In addition, natural security and public interest can limit the private interest in patents, but there are protections from utility models and industrial designs. Moreover, there are few protections for trade secrets and a survey in Brazilian companies reported that most have trouble protecting trade secrets.¹²

Likewise, foreign investors must register with the Central Bank Foreign Capital Registration and Supervision Office (FIRCE) and this registration permits repatriation of investment capital without additional approval. A foreign investor should request registration with FIRCE within thirty days of the investment into Brazil. In addition to FIRCE registration, a foreign investor must also register technology transfer agreements that involve remittance of royalties with the National Institute of Industrial Property (INPI).¹³

China

In order to understand the problems associated with the enforcement of intellectual property rights in China, it is helpful to reflect on how China has historically encouraged the sharing of discoveries, inventions and creative works among people over the centuries.

For two thousand years, the rulers in China encouraged people to share inventions,

discoveries, and creative works. The king or emperor, who had a fiduciary relationship to the people, was responsible for keeping blasphemous and unworthy ideas from the people. The only personal rewards for creative achievements were public recognition and endowments from the emperor. Seldom, if at all, was there a right to exclude others from copying one's inventions and artistic works. If the king liked a particular invention or creation, he might endorse the inventor or artist and protect the work.

Two prevalent Chinese philosophies, the teachings of Confucianism and Taoism ("The Way"), further emphasized community development, and not individual profit. Learning was not an individual pursuit, it was a community goal. Taoism encouraged social totality, harmony, and balance. Confucianism shunned the idea of personal reward at the expense of others. Together, Taoism and Confucianism were embodied in the Chinese culture, way of thinking, and way of life.

Traditionally, copying has been a legitimate means of learning in China. Apprentices who studied sculpture, calligraphy, and painting were taught to copy their master's work as closely as they could. The more people admired a master's work and adopted his style, the more that master's reputation and success grew. Copying was not considered theft in China; it was an honored tradition. This tradition continues today as artists reproduce famous single-edition art works, and consumers purchase these works with full knowledge that the works are replicas.¹⁴

As a result, as the world grows smaller each day and China works with other nations to help protect innovation and associated intellectual property rights, we must keep in mind its historic traditions of centuries now passed.¹⁵

India

Similarly, India's traditional view was that knowledge is for the public at large to use. In fact, the Western intellectual property views were brought into Indian culture by the English colonial government.¹⁶

India's patent regime embodies the "Robin Hood" rationale - take from the rich and give to the needy. In the mid-nineteenth century, and subsequently in 1911, the British added patent laws similar to English patent law, to India's body of law. This body of law remained as such until after 1970, well after the British had left, when it was weakened via the Indian Patents Act of 1970.

Successive post-Independence administrations all considered this a necessary step in the transformation of India from a backward, rural and principally agrarian society to a modern, urban, and industrialized nation. Two centuries of colonialism had left the country impoverished, malnourished, and its people unqualified to engage in any kind of remotely complex industrial activity. The few large-scale industries that did exist, and stood to gain from strong patent laws, were mostly British-owned. Consequently, the populist perception was that maintaining a strong patent regime would only serve the interests of the former oppressor, and more importantly, would hinder domestic industrialization due to disparities in knowledge and access to capital. To play catch-up, anti-patent doctrines were adopted and incorporated into the country's patent laws. Doctrines such as "compulsory licensing," which empowered the state to grant licenses to non-patentees, regardless of the patent-holder's wishes, and "working requirements," which mandated that patentholders either manufacture the patented item within India or lose their right to exclusive use, became law.¹⁷

Japan

Likewise, in Japan, the interest of society is at least as important as individual rights and this view has had a substantial impact on the way the Japanese people look at intellectual property. As a result, enforcement of intellectual property rights often reflects the norms of Japanese society.¹⁸

> Unlike the United States Constitution, the Constitution of Japan itself does not address intellectual property rights. It does, however, reflect the primacy of the public interest in connection with all types of property rights. Article 29 provides as follows:

The right to own or to hold property is inviolable.

(2) Property rights shall be defined by law, in conformity with the public welfare.

(3) Private property may be taken for public use upon just compensation therefor.

"A concept of rights is not necessary, of course, for the enforcement of legal rules. Duties alone suffice." Chinese law, from which early Japanese law was adapted "only knew duties; duties toward the state and duties toward one's elders and betters." Sinicized legal systems of East Asia "precluded the development of the concept of 'legal rights."' Western law derives from the Roman tradition, which relied primarily on a system of rights "to delineate those persons with the legally recognized capacity to enforce certain substantive legal rules, whether made by legislative, administrative, or judicial authorities, or even, as in the case of contracts, private parties given rulemaking authority."

The primacy of duty to society underlies the Japanese general sense that ideas should be free. Indeed, a "central tenet of Confucianism is that an idea cannot be owned but must be shared. The very idea of intellectual property rights being tied up in a single individual or company is therefore alien to ancient Japanese culture." While not specific to intellectual property law, The Hôrei provides that any provision of an otherwise applicable law will not apply if contrary to the "public order and good morals" of Japan. Such broad aphorisms of public policy exist in U.S. law, but the force of the Hôrei provision is of a higher order of magnitude. This immutable cultural value imbues Japanese concepts of intellectual property and must be borne in mind if one hopes to understand the Japanese approach to intellectual property issues.¹⁸

United States

The United States, on the other hand, has traditionally viewed rights in innovation as an exchange of an exclusive grant offered by the government for scientific development and creativity. The foundation of intellectual property rights in the United States is the United States Constitution which provides for the promotion of science and useful arts through a governmental grant of exclusivity for a set period of time.

As noted by one scholar:

The framers of this Constitution were very cautious about property rights, and left these to the individual States, with intellectual property rights as the only exception, by giving Congress power, in Article 1, section 8, clause 8.

"To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries".

Although this Article gives power to Congress which resulted in laws of copyright for authors and patents for inventors, it "is generally understood to serve as a limit on Congressional power, not simply a grant thereof". To this extent, it is analogous to the English Statute of Monopolies of 1623/4. That Act of Parliament did not give power to grant patents, but limited the monopolies that could *be lawfully granted by Letters Patent to those* which led to "new manufacture within the Realm".

There are three roots to the exclusive rights provision in the U.S. Constitution. One goes back through the Venetian patent system to medieval alpine mining grants. These gave temporary monopolies to encourage individual investment of time and effort, as did the various arrangements in European countries up to the time of the French revolution, to encourage importing new technology from abroad. This is held to be why Article 1.8 gives as the justification for protecting authors and inventors, "To promote the progress of Science and Useful Arts". A second root was through the monopoly grants which followed the invention of printing, largely to try to control it, such as that of copyright to the Stationers' Company in London. A third root was the philosophy of the Enlightenment, with its emphasis on individual human rights, leading to the idea that since the State had a duty to protect individual personality in its physical aspect, it also had a duty to protect its extensions in the form of ideas or creative work. This was the intellectual basis of the copyright and patent acts which were passed by several of the American States even before Federation.¹⁹

Nigeria

In recent years, the Nigerian government has made an effort to support technological development locally in the country. As a result, Nigeria has certain general principles regarding technology transfers.

> Nigeria is still a major importer of technology and finished goods. In this circumstance, its citizens have of necessity become familiar with several international brand names. trademarks and industrial designs, etc. which sometimes unfortunately being are *imitated* by unscrupulous businessmen. For example, the authors have not only observed the false labelling of goods as regards "country of origin" but also the infringment and "passingoff" of internationally well-known trademarks and designs and the illegal reproduction of cinematograph films, phonographic recordings and books. In some instances, third parties have even succeeded in establishing proprietary rights and a priority claim over international trademarks and designs which did not belong to them.

> Following the market practice in most other countries, the Nigerian laws permit a

prospective foreign investor to protect his proprietary interest in any trademarks, patents, designs or copyright even before completing the other formalities for establishing a business in Nigeria. Thus, it is in fact possible and often advisable for a manufacturer and exporter of goods into Nigeria to have his trademarks, designs or copyright registered in the country without any intention of establishing a formal business vehicle in Nigeria as this is not a legal requirement or pre-condition for registration. Nigeria is a member of the Paris and Berne Convention.

*The various categories of intellectual property law are now examined and the procedures for registration outlined.*²⁰

In addition, there are also various requirements to provide technical training for Nigerians participating in new developments that can affect technology transfers to Nigeria.

CONCLUSION

There are various types of contractual relationships and agreements available by which intellectual property rights may be shared and transferred. Offshore technology businesses and associated institutions must evaluate the type of relationship is the most suitable and the specific terms to be included in agreements on a case-by-case basis. There are a number of market and governmental regulatory factors that will influence the type of agreement reached between two parties. Therefore, companies and professionals should assess the opportunities and risks at an early stage rather than contemplate them after completing the agreement or project. Stakeholders should work together with governments to maximize the benefits of the technology transfer. Once there is a full understanding of the benefits and concerns of each participant involved and the citizens of the territory where the project is to be advanced, a successful collaboration is likely to result from the transfer of ideas and developments.

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