

IP Bits

2013 to 2019 Compilation



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<u>Tech Transfer Bootcamp</u>	2 Days
<u>Entrepreneurship Bootcamp</u>	1 Day
<u>What Scientists Need to Know About IP and Commercialisation</u>	1 Day or ½ day

CONTENTS

1. FINANCIAL TERMS OF A LICENSE.....	5
1.1 GETTING A ROYALTY IN COUNTRIES WHERE YOU HAVE NO PATENTS.....	5
1.2 GETTING A ROYALTY ON SALES OF SOMEONE ELSE'S PRODUCT.....	8
1.3 NEGOTIATING <i>THE RIGHT</i> ROYALTY.....	10
1.4 HOW DOES A DCF ANALYSIS HELP FORMULATE ROYALTY RATES FOR A LICENSE.....	13
2. IP OWNERSHIP.....	17
2.1 JOINT OWNERSHIP OF PATENTS DOES NOT RESULT IN JOINT BENEFITS.....	17
2.2 SOLVING IP OWNERSHIP CONTROVERSIES IN COLLABORATIONS.....	22
2.3 ARE UNIVERSITY IP POLICIES LEGALLY BINDING?.....	26
2.4 WHO SHOULD OWN THE NEW IP UNDER AN MTA?.....	30
3. LICENSING	33
3.1 THE HARDEST PART OF A LICENSE TO NEGOTIATE – DILIGENCE OBLIGATIONS.....	33
3.2 THE HARD ISSUES IN AN EXCLUSIVE FIELD LICENSE.....	43
3.3 CAN A LICENSOR WARRANT THAT IT OWNS THE IP IT LICENSES?.....	45
3.4 CONTROVERSIES IN THE LICENSING OF FUTURE IMPROVEMENTS.....	49
3.5 SUB-LICENSING: CONTROVERSIES AROUND STEP-IN RIGHTS	51
3.6 WHAT DO “BEST ENDEAVOURS” AND “REASONABLE ENDEAVOURS” MEAN?	54
3.7 SECURING DILIGENCE OBLIGATIONS IN EARLY STAGE LICENSING.....	56
4. NEGOTIATION	59
4.1 NEGOTIATING IP OWNERSHIP.....	59
4.2 WHO SHOULD MAKE THE FIRST OFFER IN A LICENSE NEGOTIATION?.....	62
4.3 INFORMATION IS THE CURRENCY IN A NEGOTIATION	65
4.4 LOADED QUESTIONS TO WATCH OUT FOR (OR TO ASK)	68
5. OPTIONS TO NEGOTIATE & RIGHTS OF FIRST REFUSAL	71
5.1 RIGHTS OF FIRST REFUSAL AND OPTIONS TO NEGOTIATE: ARE THEY LEGAL?	71
5.2 CONTROVERSIES ABOUT RIGHTS TO CONFER ON A RESEARCH SPONSOR.....	76
6. START-UP COMPANIES.....	80
6.1 GLOSSARY OF TERMS USED BY VENTURE CAPITALISTS	80
6.2 VENTURE CAPITALISTS' INVESTMENT CRITERIA.....	84
6.3 START-UP COMPANIES AND ANTI-DILUTION RIGHTS.....	87
7. TECH TRANSFER BEST PRACTICE	92
7.1 DOWNSIDES OF ASSIGNING IP FOR ROYALTIES.....	92
7.2 LURKING LEGAL TRAPS: HOW IP IS DESCRIBED.....	95
7.3 MAXIMISING THE COMMERCIALISATION WINDOW.....	98
7.4 MEASURING A TECHNOLOGY TRANSFER OFFICE'S PERFORMANCE.....	101
7.5 CAN CONFIDENTIAL INFORMATION BE DISCLOSED WITH NO CONFIDENTIALITY AGREEMENT?	104

1. FINANCIAL TERMS OF A LICENSE

1.1 Getting a Royalty in Countries where you have no Patents

Why licensors should not get a royalty when they don't have patents

An almost standard provision in a license is that a licensee is only obliged to pay royalties on the sale of licensed products in countries where there is a granted patent. As a result, no royalty is paid for the sales of a product in a country where there are no granted patents.

There are persuasive reasons why a licensor should not be paid a royalty on sales in countries where there are no patents:

1. There being no granted patent in a particular country, and the licensor therefore having no intellectual property protection in that country, there is no use being made in that country of the licensor's intellectual property, so why should the licensor be remunerated with a royalty?
2. There being no granted patent in a particular country, a competitor can manufacture and sell the product in that country, without infringing the licensor's intellectual property, and without the overhead of a royalty. The licensee would be disadvantaged if the licensee had to compete in that country with such a competitor that had no royalty obligation.

However, the commerciality of these reasons needs to be tested on each occasion that a license is negotiated. On some occasions, the circumstances of the transaction will validate these persuasive reasons. For example, an impecunious licensor, at the time of national phase may have pursued patent protection only in its own country, and the United States, as it is the world's largest market. With patent protection in only two countries, there is no barrier to entry to competitors entering the market anywhere else in the world, and the rest of the world is a sizeable market. If competitors do enter the market in the rest of the world, without the overhead of a royalty, they can compete more effectively against a licensee that is burdened by a royalty obligation.

Why licensors should get a royalty when they don't have patents in a country

But now consider the opposite extreme. Let's say that patents are pursued in all significant markets, say in 20 to 25 countries which between them cover 90% of the global market. Let's say as well that no patent was sought in a small country, such as Finland. But sales will be made in Finland. Should the licensor receive a royalty for product sales in Finland even though there is no patent protection in Finland?

With patent coverage that extends to 90% of the global market, there is likely to be an effective barrier to entry, precluding potential competitors achieving the economies of scale that they would normally need. The result, in this example, is that there will not be competitors in Finland. But the licensee will be making profits on product sales in Finland. In this case, why shouldn't the licensee share some of those profits with the licensor?

There are commercial reasons why the licensee should share its profits with the licensor for sales in a country like Finland where sales of products take place, but there is no patent granted.

1. The licensee is equipped to make sales in Finland only because it has the license to the 20 to 25 countries where patents have been granted that cover 9% of the global market. If it did not have that license, it would not be making sales in Finland nor other countries where no patents were pursued. The value proposition to the licensee of the license therefore includes sales in countries where no patents have been sought.
2. The licensee is making use of the licensor's intellectual property, by making the products that are to be sold in the countries where no patents were sought.

Contract basis, not patent law basis

It might be argued that there is no patent law basis to justify a licensor receiving royalties on products sold in countries that have no patent protection. That may be so, but there is a contractual basis to justify those royalties. If the parties, as a matter of contract law come to a commercial agreement that the payment of the royalty extends to sales in countries where there is no patent, that contractual obligation is enforceable.

The harder issue

These two examples:

1. patents in two countries only, therefore no royalty on sales made in countries where there is no patent, and
 2. patents in countries that cover 90% of the global market place, so royalties are paid in all countries, including those where no patents were granted
- are the easy examples.

More complex will be an occasion where the patent coverage is 60%, 70%, or 80% of the global market. Now there is less certainty that the patent coverage is an effective barrier to entry that will deter competitors entering the market place in countries without patent protection.

This might be assessed to be so likely that there is no real purpose in the license even anticipating the possibility that there won't be competitors and trying to make provision for royalties in countries where there is no patent. But then again, the extent of patent coverage of the global marketplace might make that assessment an uncertain one. There may be some regions in the world where the extent of patent coverage will be an effective barrier to entry against competitors in that region. But other regions in the world may be such that the extent of patent coverage makes it inviting for competitors to enter the marketplace in countries with no patents in that region. In that case the license will need to anticipate both possibilities.

The characteristics of a product also impact on the question. For any number of reasons, a copycat product may be an inferior product and even in a country without patent protection, the competing product may only manage to obtain a modest share of the market so that the licensee still dominates the market in that country. In this case, a licensor not unfairly may argue that it should still receive its royalty.

A mechanism that is sometimes used is for the license to provide for two cumulative royalty rates:

1. one rate that applies to the use of granted patents, such as X%, and
2. another additional rate that applies to the use of know how, such as Y%.'

The result is that:

1. in countries where there is a patent, the licensee pays X% + Y%, and
2. in countries where there is no patent, the licensee pays Y% only.

The effects of this model need to be considered. If a competitor does enter the market place, the licensee might still have to pay the Y% for the use of know how. And if the know how enters the public domain, the Y% royalty may cease, even if there are no competitors that have entered the market place.

A preferred model

A preferred model is:

1. for sales in countries where there is a patent, the licensee will pay the full agreed royalty
2. for sales in countries where there is no patent, the licensee will pay:
 - (a) the full royalty if:
 - (i) there is no competing product; or
 - (ii) there is a competing product but its market share is less than an agreed percentage (say 10%)
 - (b) a reduced royalty (say decreased by 50%) if there is a competing product and its market share is greater than an agreed percentage (say 10%), but less than another agreed percentage (say 30%)
 - (c) no royalty if there is a competing product and its market share is greater than an agreed percentage (say 30%).

In these scenarios, the royalty should not be extinguished. Instead it should be suspended. In this way, if the competitor goes out of business in a country where there is no patent, the full royalty is automatically reinstated and becomes payable again.

This basic model can be varied in many ways. The financial terms of a license are always highly negotiable, and this is one of those highly negotiable terms.

1.2 Getting a Royalty on Sales of Someone Else's Product

Introduction

It doesn't quite sound right, does it? How can a licensor get a royalty, not on sales of the licensor's own product, but someone else's product?

Most patent license agreements provide for an infringement based royalty. That is, a royalty is only payable upon the sale of a product that but for the license would infringe the licensor's patent.

But that is not the only way to structure license payments.

One basis of a royalty is that a licensor should be remunerated by the licensee, for the licensee's use of the licensor's IP, by reference to the licensee's quantity of use of the licensor's IP. That quantity of use is measured by the number of products that the licensee sells (the quantity of use approach).

An alternative basis of a royalty is that a licensor should be remunerated by receiving a fair proportion of the income that the licensee receives, which would not have been received but for the license (the proportion of licensee's profit approach).

For some licenses, the only way to fairly remunerate a licensor, on either basis, is for the licensor to receive royalties based on, not sales of the licensor's own product, but someone else's product.

Some examples of some recent transactions will illustrate.

License of chemical catalyst – royalty on off-patent product

The licensor's technology was a catalyst that made a manufacturing process more efficient. It was calculated that the efficiencies produced resulted in a lowering of production costs by 15%.

The product made in that manufacturing process had been protected by a patent, but the patent had expired 10 years earlier.

The market for this catalyst product was small. Only a handful of producers, throughout the world, could be identified. Manufacturing and selling the catalyst to be bought by this handful of buyers was not economical.

The commercialisation pathway that was more appealing was to license the catalyst technology to each user. Each user would make its own catalyst, to the extent of its own requirements.

How was the licensor to be properly compensated ? There were not to be any sales of catalyst products. But there were to be sales of the off-patent product manufactured with the assistance of the catalyst.

A royalty was negotiated based on the invoice price of the sales of the off-patent product.

This reflected both:

1. the quantity of use approach (the licensor's remuneration was to be based on the licensee's quantity of use of the licensor's IP, as measured by the number of off-patent products sold that had been manufactured with the assistance of the catalyst), and
2. the proportion of licensee's profit approach (the licensor's remuneration was to be based on the additional profits that the licensee would make selling the off-patent product, given the lower costs of production that it experienced as a result of the use of the catalyst).

License of software – royalty on the sale of Ipads

A company developed a unique software application that served the needs of a specialist industry sector, and which was designed to run on an Ipad. A license to commercialise the unique software application was negotiated with the leading seller of products for that industry.

The sale of Ipads was not part of the licensee's usual business. It had never sold Ipads before.

The licensee was effectively a licensed reseller of the software application. A royalty was negotiated, being a percentage of the end user license fee that was paid by the consumer, based on the usual invoice price model.

But it was felt that that did not fairly compensate the licensor for all the financial benefits that the licensee would receive, which would not have been received but for the license.

Some end users would purchase a license of the software, and install it on an Ipad they already owned, or which they might choose to buy from another vendor.

But some end users would, as well as purchasing a license of the software, also purchase an Ipad from the licensee.

The licensee would therefore make a sale of the Ipad, and receive a financial benefit from that sale.

That being a "bonus" financial benefit, it did not seem inappropriate for the licensor to share in that "bonus".

An additional royalty was negotiated, based on 35% of the difference between the retail sale price of Ipads sold, and the wholesale price for which they were purchased. The rationale of this royalty was that the licensee should receive 30% of the profit for the licensee's work and overheads relating to the ordering, storage, insurance, and administration etc of Ipads and the remaining 70% profit, the "bonus" should be shared in equal proportions between the licensor and licensee.

In this way, the licensor of software received a royalty based on sales of someone else's product – Apple's Ipad.

This example illustrates the proportion of licensee's profit approach to a licensor's remuneration.

The licensee realised profit on two ways:

1. the sale of end user licenses (and a royalty was paid based on the invoice price of the end user license)
2. the sale of Ipads (and a royalty was paid based on the gross profit on the sale of each Ipad).

Conclusion

Sometimes there will be challenges in formulating a royalty structure for a license.

Not all IP that is licensed lends itself to attract a royalty based on the invoice price of a product (such as in the catalyst example).

Some IP when licensed will result in side benefits to a licensee and it is not inequitable for these to be shared by the licensee with the licensor (such as in the royalty on Ipads example).

In each case, when considering how to structure the financial terms of a license, the question to consider is how it is best, on that occasion, to capture a fair remuneration to the licensor.

Most of the time, the answer will be a royalty based on the sale of products that infringe the licensor's IP.

But sometimes, there may be a need to be more inventive in arriving at the best answer.

1.3 Negotiating *the right* royalty

Every license negotiator's worst nightmare #1 – seeking too little

There is nothing worse in a license negotiation than for your first royalty offer to be accepted. If you are a licensor and the licensee accepts your first royalty offer, without any negotiation, your first offer was too low – the licensee would have paid more. You have missed out on receiving the higher royalty that the licensee was prepared to pay.

If you are a licensee and the licensor accepts your first royalty offer, without any negotiation, your first offer was too high – the licensor would have accepted less. You are paying more for the licensed technology than you should have.

Every license negotiator's worst nightmare #2 – seeking too much

Surely seeking too much in a negotiation of royalty rates is not a nightmare – you can always negotiate from your opening position? But it can turn into a nightmare if you lose the deal as a result of seeking too much.

A licensor that seeks too much is one that offers a commercially unreasonably high royalty rate. A licensee can draw a number of inferences from that, including that proceeding to negotiate the licensor's unrealistic high opening position may be too difficult, too time consuming, and too expensive. A licensor that starts too high might therefore deter the licensee, and put the whole deal at risk.

The same is the case when a licensee offers too little. Similar inferences may be drawn by the licensor, including that proceeding to negotiate the licensee's unrealistic low opening position will be too difficult, too time consuming, and too expensive. A licensee that starts too low might therefore similarly put the whole deal at risk.

Not just royalty rates – up fronts and milestone payments as well

Nightmares #1 and #2 are not confined to royalty rates. They might also happen when negotiating the amount of an upfront payment, the amounts of milestone payments, and other payments.

Ways that do not lead to the right answer #1

Sometimes a license negotiator's approach to negotiating the financial terms of a license is to seek more than what is offered. There are two things wrong with that approach.

The first is that even after you believe that you have extracted as much as you can, you may still have not reached the market rate, and worse, you do not know that that is the case. When this happens, if you are a licensor, you have settled for too little. And if you are a licensee you have committed to pay too much.

The second is that this approach requires the other party to make the first offer. If you wait too long for the other party to make a first offer, it may well infer that you do not know the market value of the technology. With that inference comes the further inference that you may be likely to settle on a package of terms well below the market rate.

Negotiation best practice is that whoever makes the first offer in a negotiation has the advantage - see an earlier edition of IP Bits [Who should make the First Offer in a License Negotiation](#). The approach of waiting for the other party to make the first offer of a royalty rate is not best practice.

Ways that do not lead to the right answer #2

Sometimes a license negotiator's approach is to seek the standard 5% royalty.

Statistically 5% is a very common royalty rate. But that does not make it the right royalty rate. 5% might be OK. But if the market value of the licensed technology is 10%, you will have worst nightmare #1. And if the market value of the technology is only 1%, you might have worst nightmare #2.

Ways that do not lead to the right answer #3

Sometimes a license negotiator's approach is to consult statistical tables of royalty rates in different industries for guidance.

There are four things wrong with that approach.

1. The table may give a single average rate for a particular industry. The trouble with that is that this gives no guidance on comparability. Your technology may be more advanced, and therefore of greater value, deserving more than the table might suggest. Or, own technology may be at a more infant stage of development, when it obviously will be of lesser value, deserving less than what the table might suggest. The absence of being able to compare your technology means that nightmares #1 and #2 will be on the horizon.
2. The table might give a range, such as 4%-8% for a particular industry. You might infer that 8% is appropriate for a mature technology, and 4% is appropriate for a technology in a more infant state of development, and then judge where in that range you might lie. The trouble with that is that 4% might have been the royalty rate in a license for a very mature technology, where the royalty rate was negotiated at a modest level because that specific license agreement provided for a generous upfront payment and generous milestone payments.
3. The third is that statistical tables do not always give the full story. A statistical table of royalty rates will give no indication of other valuable payments under the license such as upfront payments and milestone payments.
4. The fourth is that these tables may, and often do, present statistically unreliable information. If the sample size for a range of 4% to 8% was only two licenses, and you would not necessarily know if that was the case, nothing at all can be reliably inferred.

What is the “right” royalty rate?

The “right” royalty rate under a license is the market royalty rate applicable for the technology that is licensed. So also, the “right” “package” of financial terms including royalties, upfront payments, and milestone payments, is a package of terms that accords with the market.

How do you know what that is?

How do you know what the market value of a house is? You look at other comparable houses, inspect them to compare the extent of comparability, and compare the market price for which they were sold. The more points of similarity the greater the price comparability.

The market royalty rate (and other financial terms) is assessed in the same way. You need to find comparable technologies that have been licensed, and find the financial terms of those licenses. The greater the similarity between your technology and the ones you find, the more you may be persuaded that the royalty rate (and the package of all the financial terms) in the compared licenses, represent the value of your own technology.

This is called undertaking a benchmarking or comparables analysis, a skill that every licensing professional must have. There are tools, methodologies, and best practice to find the data and comparable licenses to undertake this analysis.

For some license transactions, a discounted cash flow analysis might additionally be done to help formulate the market royalty rate and other financial terms.

There are also other methodologies and tools to assist formulating *the right* royalty rate.

1.4 How Does a DCF analysis help formulate royalty rates for a license

Introduction

A discounted cash flow (DCF) analysis is a valuation methodology to value intellectual property as a lump sum amount.

How does it help formulate the package of financial terms (up front payments, milestone payments, and royalties) payable under a license?

What is a DCF Analysis?

A discounted cash flow analysis:

1. forecasts the revenue that will be earned from the commercialisation of intellectual property, for the unexpired duration of a patent
2. forecasts the expenses that will be incurred in the commercialisation of the intellectual property, for the unexpired duration of the patent
3. factors in the changing value of money over time by applying a discount factor
4. assesses the likelihood of the intellectual property being fully developed and resulting in a product reaching the marketplace, by factoring in the probability of success,

and arrives at a lump sum amount.

It sounds straightforward. But preparing a spreadsheet analysis to arrive at that lump sum is a complex and skilled exercise.

It is not intended in this edition of IP Bits to go through each step of a DCF analysis, but only to make a few brief remarks before focusing on the real question that this edition is concerned with: how that lump sum will help in formulating license financial terms.

Necessarily, assumptions (for example, price, market size, market share, competitors, expenses, etc). have to be made in forecasting revenue and expenses, and the probability of success and failure.

The robustness of those assumptions will influence the robustness of the result of the analysis. The skill in undertaking the analysis is not in using spreadsheets, but in identifying and collecting data to ensure that the assumptions that need to be made are as robust as possible.

The more robust the identification and collection of data, the more robust the resulting assumptions, and in turn the more robust and reliable the result of the analysis. Conversely, the less robust the assumptions, the less reliable the results of the analysis.

The changing value of money over time is factored into the analysis by applying a discount rate.

The probability of success or failure can be factored in using a number of techniques. One is to apply a higher discount rate. For pharmaceutical licensing, the practice is to factor the probability of success or failure by analysing the published statistics of drugs for particular indications successfully emerging from Phase 1 trials, Phase 2 trials, Phase 3 trials, and a new drug application being successful.

A DCF analysis is not a short exercise. The spreadsheet that records the analysis may have thousands of rows.

Having now arrived at a lump sum amount, how can that be used formulate the quite different financial terms of a license: up front payments, milestone payments, and royalties?

Using the result of the DCF analysis to formulate license financial terms

The result of a DCF analysis is to arrive at the net income that intellectual property will generate over its remaining life.

Having arrived at that net income amount, the question now becomes how to apportion that net income as between

1. a licensor, in the form of up front payments, milestone payments, and royalties, and
2. a licensee, as to the remainder of that income.

This will be influenced by the stage of the development of the intellectual property.

If the intellectual property is at an early stage of development, the licensor's share of that income will be modest, reflecting the comparatively modest risk that the licensor has taken.

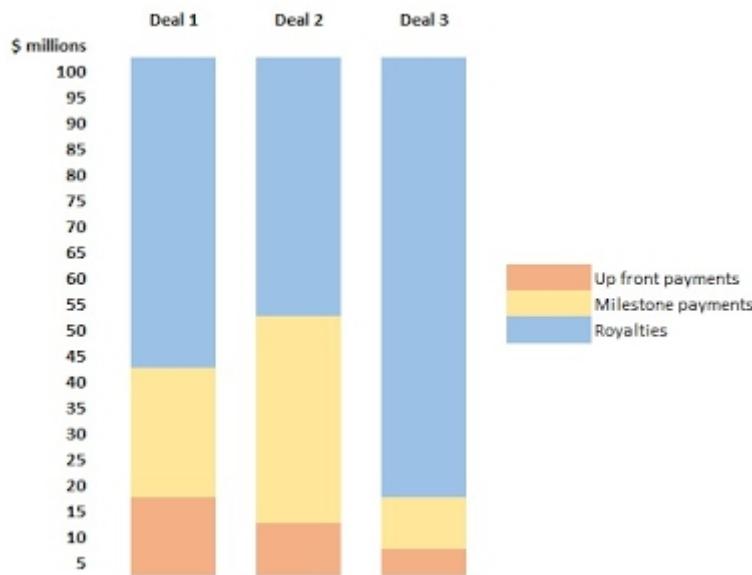
Correspondingly, the licensee's share of that income will be greater, reflecting that the licensee will comparatively take the greater risk in developing the intellectual property to the stage where a product is launched in the market place. A licensor's share of the future income might be a modest 15% to 30%, depending upon many factors.

Conversely, if the intellectual property is at an advanced stage of development, the licensor's share of that income will deserve to be greater, reflecting the comparatively greater risk that the licensor has taken. Correspondingly, the licensee's share of that income will be lower, reflecting that the licensee will comparatively take a lower risk. A licensor's share of the future income might now be a more substantial amount, of 30% to 50% or more, again, depending upon many factors.

But we still now only have a lump sum amount that represents the licensor's share of the future income. How does that transform into up front payments, milestone payments, and royalties?

The answer is that it transforms into any amounts of up front payments, milestone payments, and royalties which in aggregate add up to the lump sum amount that represents the licensor's share of the future income.

That can be done in a myriad of ways. Consider the graph below which illustrates three different ways that a licensor can receive \$100 million, which is its share of the future income on this example.



Deal 1 is front end loaded with the highest up front payment of \$15 million, while Deal 3 has the lowest up front payment of \$5 million.

Milestone payments are largest in Deal 2.

Deal 3 is back end loaded with royalties of \$85 million, while Deal 1 has \$60 million in royalties, and Deal 2 has \$50 million in royalties.

But all three deals represent the same total amount (in present money's worth) for the licensor's share of the future income. All three deals are identical in present value of \$100 million. It is just that in each deal how that \$100 million is represented differs.

Deal 1 is loaded with up front payments. Deal 2 is loaded with milestone payments, and Deal 3 is loaded with royalties. But all three deals are of identical present value.

What the table shows is that if a licensor receives less of one type of remuneration (eg, up front payment in Deal 3) then it must be compensated by receiving more of another type of remuneration (that is, royalties in Deal 3).

Where is the royalty rate?

The DCF spreadsheet calculates the aggregate remuneration (up front payment, milestone payments, royalties) that a licensor should receive, on our example above - \$100 million. Now, the analysis will "try out" different combinations of each component (up front payment, milestone payments, royalties) of that remuneration, but always remaining within the parameter of the aggregate of all components of remuneration calculated by the DCF analysis.

Increasing the royalty rate (such as in Deal 3) will reduce the up front payments and milestone payments in the spreadsheet. Correspondingly, decreasing the royalty rate will increase the up front payments and milestone payments.

The result of the DCF analysis will be to arrive at:

1. a royalty rate range
2. a range for an up front payment, and
3. a range for milestone payments.

These ranges will now assist the negotiation of the financial terms of the license.

If the royalty rate negotiation is producing a rate in the higher range, then the up front payment and milestone payments, while sought to be maximised of course, may have to be in the lower end of the possible range.

Correspondingly, if a high up front payment is being negotiated, then while still seeking the highest possible royalty, the final royalty rate may have to be in the lower end of the range.

A DCF analysis therefore helps:

1. quantify the aggregate remuneration (up front payment, milestone payments, and royalties) that a licensor should receive - the higher the aggregate remuneration, the higher each component (up front payment, milestone payments, and royalties) should be
2. "try out" different royalty rates and different amounts of other components of the licensor's remuneration to assess the possible range of royalty rates and other financial terms for a specific license
3. protect a licensor from the risk of under-aspiring and seeking financial terms that are too modest, and which do not secure the financial terms the licensor deserves
4. protect a licensor from over-aspiring and seeking too much, and by doing so risking the potential licensee deciding to walk away and to not proceed.

2. IP OWNERSHIP

2.1 Joint Ownership of Patents Does Not Result in Joint Benefits

An expanded version of this issue of IP Bits was published as [The Economic and Bargaining Implications of Joint Ownership of Patents](#) in *The Licensing Journal, Volume 35, Number 2, pages 4–11, February 2015*

Introduction

When organizations collaborate to generate patentable intellectual property they sometimes share the expectation that they should jointly own the intellectual property that arises from their collaboration. After all, they jointly contribute to the collaboration, and they anticipate that they will jointly make inventive contributions to the intellectual property that arises.

Jointly sharing undertaking the collaboration, the expectation that they should jointly share the benefits is not an unnatural one.

The symmetry of joint ownership appears to confer an even and fair result, and so it is not unexpected that collaborators are drawn to joint ownership.

Critical questions unanswered

Sometimes, agreeing upon joint ownership is as far as the collaborators may go, assuming that being a joint owner confers all the benefits that each collaborator needs. The collaborators therefore neglect addressing two critical questions. To the extent that they fail to address these two critical questions, the law will step in and regulate their joint ownership relationship in ways that may surprise the joint owners.

The two critical questions are:

1. Can a joint owner exploit the patent and retain all the profits, without sharing those profits with the other joint owner?
2. Can a joint owner grant an exclusive license of the patent without the consent of the other joint owner?

The laws of different countries answer these questions in different ways.

Do joint owners need to be concerned about laws of countries other than their own?

Yes they do.

A patent exists in the country in which it is granted, and is governed by the law of that country. If a patent is granted in 20 countries, the separate laws of each of the 20 countries will govern each of the 20 granted patents.

In assessing the implications of the joint ownership of a patent, there is therefore a need to consider not just the laws of the country governing an agreement, or the laws operating in the country or countries where the joint owners are located, but as well the laws of all other countries where a jointly owned patent has been granted.

The law on jointly owned patents

The table below indicates, in relation to these two critical questions, in the selected countries indicated, how the domestic law of each respective country regulates the question, to the extent that the joint owners have not themselves regulated the question in a written contract.

Can a joint owner exploit the patent and retain the profits, without sharing profits with the other owner?			Can a joint owner grant an exclusive license of the patent without the consent of the other joint owner?		
Country	Response	Authority	Country	Response	Authority
Australia	Yes	Section 16(1) Patents Act 1990	Australia	No	Section 16(2) Patents Act 1990
China	Yes	Article 99(3) Patent Act	China	No	Article 15 Patent Law
Great Britain	Yes	Section 36(2)(a) Patents Act 1977	Great Britain	No	Section 36(3) Patents Act 1977
Hong Kong	Yes	Section 54(2) Patents Ordinance	Hong Kong	No	Section 54(3) Patents Ord
India	Yes	Section 50(2) Patents Act 1970	India	No	Section 50(3) Patents Act 1970
Malaysia	Yes	Article 15 Patent Law 1983	Malaysia	No	Section 40 Patents Act 1983
Singapore	Yes	Section 46(2)(a) Patents Act	Singapore	No	Section 46(3) Patents Act
South Korea	Yes	Section 40 Patents Act 1983	South Korea	No	Article 99(4) Patent Act
Thailand	Yes	Section 40 Patent Act BE 2522	Thailand	No	Section 40 Patent Act BE 2522
United States	Yes	35 USC §262	United States	Yes	<i>Schering Corp v Roussel</i> 104 F.3d 341 (1997)

Implications where both joint owners have capacity to exploit

Where the joint owners each have the independent capacity to exploit the jointly owned patent, separately having all the necessary plant and equipment, manufacturing facilities, technical skills, and marketing and distribution capability, they may not necessarily be disadvantaged by their joint ownership. Each having that capacity to exploit, each can economically benefit from its joint ownership.

The way they benefit however may be unequal. One may have the capacity and resources to exploit throughout the country, while the other might have a limited capacity and only be able to exploit in a region. Or, one may have the capacity and resources to exploit internationally, while the other might only have the capacity to exploit in its own country.

Implications where one joint owner has capacity to exploit, and other lacks capacity

Where:

1. one joint owner has the capacity and resources to exploit the jointly owned patent, such as a large SME, large company, or multinational company, and
2. the other joint owner lacks that capacity, such as a small SME, a start-up company, or a university or other research organisation,

the implications of joint ownership will be quite different.

Now:

1. One joint owner, having the capacity to do so, can exploit the patent without the consent of the other, and without paying a royalty to the other, or sharing profits. The joint owner with the capacity to exploit can therefore enjoy the economic benefits of ownership. The joint owner without that capacity to itself exploit, cannot enjoy this benefit of ownership.
2. Neither joint owner may grant an exclusive license of patents (other than in relation to a US patent). The joint owner without that capacity to exploit may wish to grant licenses, as the only way that it might accrue any economic benefits, but may only do so with the consent of the other joint owner. Given that the joint owner whose consent is sought would be equipping a competitor if it granted that consent, it is likely that it will decline to give that consent.
3. A joint owner may grant an exclusive license of its own rights under the United States patent, without the consent of the other joint owner. But pragmatically, this is unlikely to occur. A licensee from one joint owner will have to compete with the other joint owner in the United States, and would prefer therefore to obtain a license that is exclusive of both joint owners. Or, a potential licensee will prefer a worldwide license, and that cannot be obtained without both joint owners granting, or consenting to the license.

As a result:

1. the joint owner with the capacity to exploit will benefit economically from its joint ownership, by exploiting the jointly owned patent, and
2. the joint owner without the capacity to exploit may not receive any of the economic benefits of joint ownership, since it cannot exploit the patent, lacking the capacity to do so, and being unable to grant licenses in respect of the jointly owned patent without consent, where that consent will be unlikely to be given.

The collaborators may well have intended, by their joint ownership, to jointly benefit by their joint ownership. In fact, all the connotations of joint ownership suggest that the relationship between the joint owners will be one of mutuality, with each benefitting from the joint ownership in a mutual and equal way. But contrary to those expectations, only one joint owner benefits economically, namely the joint owner with the capacity to exploit, while the joint owner without that capacity realizes none of the economic benefits of ownership.

Jointly owned patent – preferred course

In each case, the joint owners may well have preferred to specifically address in their collaboration agreement whether they could:

1. exploit with or without consent, and with or without a royalty payable to the other
 2. grant licenses with or without consent, and with or without an obligation to share royalties.
- By doing so, they would have agreed upon a set of rules governing their use and enjoyment of their jointly owned patent, including the economic benefits, instead of being subject to the unharmonised, and sometimes unexpected laws that by default, will govern joint ownership in the absence of agreement.

Jointly owned patent: effect on the bargaining positions of the joint owners

The joint ownership of a patent may also impact upon the joint owners' respective bargaining positions.

Suppose:

1. a large company with the capacity to exploit collaborates with an organization that does not have the capacity to exploit, such as a small SME, a start-up company, or a university or research organization
2. the company provides research funding
3. the collaborator without capacity to exploit makes all the inventive contributions
4. nevertheless, in the spirit of the collaboration, the collaborators have agreed that the patentable intellectual property arising from their collaboration will be jointly owned by them.

The result is:

1. the large company joint owner with capacity to exploit can exploit the patent, without the consent of the other joint owner, and without having to pay a royalty, and therefore enjoys economic benefits from the jointly owned patent, and
2. the joint owner without the capacity to exploit cannot exploit, lacking the capacity to do so, and cannot grant a license without the consent of the other joint owner, which not wishing to consent to a competitor being licensed, will decline to give consent, with the result that this joint owner does not enjoy any of the economic benefits of the patent.

Postulating further:

1. the large company joint owner would prefer to have the ability to grant licenses, and would prefer not to have to seek the consent of the other joint owner to do so
2. the large company joint owner therefore requests the other joint owner to grant to it an exclusive license of the latter's share of the jointly owned patent.

There are two matters impacting upon the bargaining position of the joint owner that lacks the capacity to exploit.

Firstly, the impact of presumed equal joint ownership: whatever the commercial rate may be for the package of financial terms (royalties, up front payments, milestone payments), the joint owner without capacity to exploit can only expect to receive half that commercial rate. This is because joint ownership, in the absence of agreement, will be presumed to be equal, so that it is only a half interest in the patent that is being licensed by the joint owner. This may not be an unfair result, if the respective contributions of the joint owners during the research phase of their collaboration were equal. If their respective contributions were unequal, this would be an unfair result.

Secondly, the bargaining position of the joint owner without the capacity is diminished. As a result of the joint ownership relationship:

1. the large company joint owner can already realize economic benefits by exploiting the jointly owned patent, because it has the capacity to do so, while the other joint owner, without capacity, cannot exploit, and so realizes no economic benefits at all
2. the joint owner without that capacity can only realize economic benefits by granting a license, which will require the prior consent of the large company joint owner, which it presumably will decline to give.

In these circumstances, the joint owner without capacity to exploit has a weak bargaining position. It cannot realize any economic benefits from its ownership interest in the patent. It lacks capacity to exploit, and any intention to license may be prevented by the large company joint owner. The large company joint owner, not being burdened in these ways, has a superior bargaining strength in that negotiation. The diminished bargaining strength of the joint owner without capacity may well be that it is unable to negotiate more than the bottom end of the commercial range of royalties and other financial terms, or perhaps even less than that.

Conclusion

The main driver that motivates collaborators to agree upon joint ownership of patentable intellectual property is the underlying assumptions that joint ownership:

1. confers mutual and equal rights
2. is fair, and
3. confers the necessary commercial rights.

But none of those assumptions is warranted. Where collaborators have an unequal capacity to exploit, joint ownership between them will be likely to disadvantage one or both of them. Where joint ownership is agreed upon between collaborators in the expectation that the joint ownership relationship will result in equal economic benefits accruing to the joint owners, they will often be surprised and alarmed to discover that joint ownership in fact may result in one joint owner realizing economic benefits, while the other joint owner realizes no economic benefits. The

presumption that joint ownership necessarily means joint economic benefits, is therefore not warranted.

In each case, collaborators should specifically focus on, and record agreement about:

1. exploitation, and whether that will be with or without a royalty to the other joint owner
2. granting licenses, whether that will be with or without consent, and with or without an obligation to share royalties.

By doing so, the joint owners will regulate their joint ownership relationship by contract, in a manner in which they have agreed, and in a manner that will take priority over and apply in lieu of unharmonised joint ownership laws in countries where they have chosen to patent.

2.2 Solving IP Ownership Controversies in Collaborations

Introduction

In every collaborative relationship the parties will have to address the sometimes very controversial issue of how the IP that arises from their collaborative research will be owned:

1. What criteria for ownership should operate?
2. What if one party makes no inventive contributions at all, should it have a share of ownership?
3. What if one party creates IP that improves the other's existing IP?
4. Should the parties have a joint venture model? In that case, how will the joint venture be governed?

These questions confront every collaborative research relationship, whether the collaboration is between:

1. two or more universities
2. two or more companies
3. a university and a company.

Joint Ownership

A very simple model is that the collaborators jointly own the New IP arising from their collaboration. Sometimes collaborators are drawn to this model mistakenly assuming that joint ownership confers on each collaborator equal and mutual benefits. But joint ownership can often operate to the

disadvantage of one joint owner, or even all the joint owners. A previous edition of IP Bits [Joint Ownership of IP does not Result in Joint Benefits](#) looked into the potential disadvantages of joint ownership.

Inventership Model

In this model, ownership of New IP arising from the collaborative research is allocated according to which party employs the inventors of the New IP. According to this model:

1. Collaborator A will own the IP invented by Collaborator A's employees and contractors
2. Collaborator B will own the IP invented by Collaborator B's employees and contractors
3. Collaborators A and B will jointly own the IP invented jointly by Collaborator A's and Collaborator B's employees and contractors.

This model for IP ownership is a common one. It reflects what the result would have been if the parties had not addressed the issue. That is, if the parties had not specifically agreed on how their New IP arising from the collaboration would have been owned, this is the result that would apply according to default legal principles.

Because of this model's mutual operation, and because it reflects the ownership result according to law anyway, it appears fair. But it can on occasion operate unfairly. Suppose:

1. Collaborator A owns Background IP
2. Collaborator B invents an improvement to Collaborator A's Background IP, with as a result Collaborator B owning that improvement
3. Collaborator A seeks a license to that improvement
4. Collaborator B either declines to grant a license, or is prepared to, but only on outrageous terms.

In this example, Collaborator A is now disadvantaged.

Another potential disadvantage is that the joint ownership of the New IP that is jointly invented by the employees of Collaborator A and Collaborator B can operate unfairly, disadvantaging one or all joint owners.

There are solutions. The first solution is to negotiate the license up front. But that could be a time consuming solution that delays the collaboration.

The second solution is to consider the Improvements Model instead of the Inventership Model.

Improvements Model

In this model:

1. Each collaborator will own the New IP that improves its own Background IP, regardless of whose employees invented the New IP
2. The collaborators will jointly own the New IP that improves the Background IP of Collaborator A as well as the Background IP of Collaborator B, regardless of whose employees invented the New IP
3. New IP that does not improve the Background IP of either collaborator is then owned in accordance with the Inventership Model.

This model now operates to prevent the potential unfairness of the Inventership model.

But it also now operates to potentially create a new unfairness: All the New IP that arises from the collaboration might be inventor by Collaborator A, and all of it could improve only Collaborator B's Background IP, so that it is solely owned by Collaborator B, with Collaborator A not receiving any economic benefits from the New IP that it solely created. As well, joint ownership arises, with the potential for it to operate unfairly.

Category Model

Another model to consider is the category model.

In this model:

1. All New IP in Category A (for example drug discovery) is owned by Collaborator A, regardless of whose employees invented the New IP
2. All New IP in Category B (for example diagnostics) is owned by Collaborator B, regardless of whose employees invented the New IP
3. All New IP in both Category A as well as Category B is jointly owned by both collaborators, regardless of whose employees invented the New IP
4. All New IP outside Category A as well as outside Category B is treated in accordance with the Inventership Model.

This model will protect the commercial interests of both parties by ensuring that Collaborator A has unencumbered ownership of the Category A IP it requires, and that Collaborator B has unencumbered ownership of the Category B IP it requires.

But it similarly also operates to potentially create a new unfairness: The only New IP to arise from the collaboration may be Category A IP, which will be solely owned by Collaborator A, and all of it may be created by Collaborator B. On this example, despite Collaborator B having created all the New IP, it receives no economic benefits from the IP it created.

Another disadvantage of the Category Model is the risk of a prior art collision in patent applications by the collaborators.

Joint Venture model

In this model, all the New IP arising from the collaboration is owned by a joint venture company. This overcomes many issues, including the issues of joint ownership, as well as the risk of prior art collisions.

All the New IP being owned by a joint venture company, each collaborator must rely on licensed rights.

The use of this model also gives rise to additional issues to navigate, including the proportions in which the joint venture company should be owned, as well as decision making and governance in relation to the joint venture company.

Concluding comments

These examples highlight that there is no “perfect answer” to the question of how New IP arising from a collaboration should be owned.

Each model has its merits, and each model has its potential disadvantages.

No model stands out in front of any other. They each have their advantages and their risks. For each collaboration, each model needs to be assessed and considered, having regard to what are the dominant considerations for that collaboration which may suggest preferring one model instead of another.

These examples also illustrate that only agreeing upon the ownership of New IP in a Collaboration Agreement may not be enough. Rights to the New IP may also need to be addressed, as a way of compensating one collaborator for the side effects of the ownership model selected, or to balance the interests of the collaborators. This will mean either licensing rights, or granting rights of first refusal or options to negotiate a license.

A previous edition of IP Bits [Rights of First Refusal and Options to Negotiate: Are They Legal?](#) looked into the legal effect and operation of rights of first refusal and options to negotiate.

2.3 Are University IP Policies Legally Binding?

An expanded version of this issue of IP Bits was published in three parts: [To What Extent are University IP Policies Legally Binding?](#)

[Part 1 - Staff](#) *les Nouvelles - Journal of the Licensing Executives Society, Volume LI No. 3, September 2016*

[Part 2 - Students](#) *les Nouvelles - Journal of the Licensing Executives Society, Volume LI No. 4, December 2016*

[Part 3 - Visiting Scientists](#) *les Nouvelles - Journal of the Licensing Executives Society, Volume LII No. 1, March 2017*

Introduction

It is often assumed that a university or research institute IP policy is legally binding. After all, it is an important policy document, and staff have agreed in their employment contracts to observe and comply with all the university's or research institute's (collectively "research organisations" or "ROs") policies.

ROs often rely on their IP policy to be entitled to ownership of IP created by their staff and students.

However, a mistaken belief that an IP policy is legally binding may lead to a mistaken belief that the RO owns IP created by a staff member or student. The RO may enter into a license (or other transaction) on the basis of that mistaken belief. Not in fact owning that IP results in the RO purporting to license something that it does not have the capacity or ability to license, putting it in breach. This exposes it to potential legal liabilities, which could be considerable.

An IP policy, being a unilateral document, not a consensual one, cannot *of itself* be contractually binding. Something more is needed if an IP policy is to be legally binding – it must either have legislative force, or form part of a legally binding contract.

Does the IP policy have legislative force?

In some countries, such as the United Kingdom, Australia, and the United States, an IP policy can be a law, if it is either a statute of a legislature, or subordinate legislation authorised by a statute of a legislature, such as a regulation, rule, or by-law. The IP policies of some (not all) universities in those countries are subordinate legislation in this way.

In these countries, and others whose legal systems are based on the UK's or US's legal systems, it is important to confirm, however, whether an IP policy that is a regulation, rule, or by-law is legally

valid. A principle operates in some (if not all) these countries that a regulation, rule, or by-law cannot exceed the authority of the legislation that authorises it.

For example, legislation giving an RO power to make a regulation, rule or by-law in relation to the “use of facilities and equipment” has been held not to be a sufficient power to make a regulation that divests staff and students of the ownership of intellectual property created by them with the assistance of the RO’s facilities and equipment. The authority is confined to making regulations, rules and by-laws relating to the “use” of facilities and equipment, and does not extend to the compulsory acquisition of ownership of property (that is, IP) from someone else.

Is the IP policy part of a legally binding contract?

If the IP policy forms part of a legally binding contract, the IP policy will be enforceable on the contracting parties. As easy as that sounds, attempts to make an IP policy part of a binding contract have often failed.

An IP policy may be “incorporated by reference” in a contract. For example, an employment contract or student enrolment form may state: “Jane Smith will be bound by and comply with the university’s policies, the provisions of which are deemed to be incorporated by reference.” Most countries have such an “incorporation by reference” law. To be legally effective it must comply with strict legal requirements.

These countries have consistently held that a clause such as our “Jane Smith” example, which does no more than call attention to the existence of the IP policy, by itself, is insufficient to comply with the “incorporation by reference” requirements, and that more is needed. That includes giving the staff member or student an opportunity to review the policy, understand it (which may require more than a single reading), ask any questions about it, or even to obtain advice about it, such as legal advice, or in the case of a student, the advice of a parent.

Not giving a staff member or student sufficient time to undertake that review and understanding, or to obtain advice, and doing no more than calling attention to the existence of policies broadly, or even an IP policy specifically, results in a very high risk that the “incorporation by reference” requirements have not been met. This results in the staff member or student not being bound by the IP policy.

As well, agreeing in an employment contract to comply with the terms of an RO’s policies would normally be understood as importing an obligation to comply with policies dealing with such matters as health and safety, security, academic rules, carrying out research, research ethics, etc. It would not normally be understood as indicating agreement to divest oneself of one’s property, such as the IP that one might create.

Similarly, agreeing in a student enrolment form to comply with the terms of a university’s policies would similarly be understood as referring to policies dealing with such matters as health and safety, etc, and would not normally be understood as indicating agreement to divest oneself of one’s property, such as the IP that one might create as a student.

Special issues in relation to staff

In some countries the law is that an employer owns the IP (including inventions) created by its employees “in the course of employment” or “during their usual duties”. This requires a careful consideration of what the employee’s employment duties actually are.

If the employment duties do not include the duty to create or invent IP, then any IP created or invented by a staff member may be owned by the staff member, not the RO.

An RO should therefore consider including in its staff employment contracts provisions stating that the staff member’s duties extend to the creation or invention of IP in the staff member’s scientific field, which must be promptly disclosed to the RO; and that such IP is owned by the RO.

By doing so, reliance for the RO’s ownership of IP created by its staff is placed on the express terms of the legally binding employment contract, instead of on the sometimes unreliable “incorporation by reference” principle.

Special issues in relation to students

Most countries have laws that protect a party to a contract from unfair terms as well as from unconscionable conduct by the other party.

An IP policy which mandates that a student must assign the student’s IP to the RO, or which asserts or declares that the RO, by force of the policy alone, owns the IP created by a student, is highly likely to be void in those countries that have laws dealing with unfair contractual terms or unconscionability.

A standard operating procedure under which all students (or category of students) must sign an IP assignment, because it is a standard operating procedure, without a student having the opportunity to review, understand, and obtain advice about the IP assignment document, is highly likely to be considered unconscionable, with the document considered to be unfair, in its legal sense.

Similarly, a provision in a student enrolment form that incorporates by reference the university’s policies generally, or even its IP policy specifically, is also likely to be unfair or unconscionable. To address these issues, many ROs do not seek an assignment from all students. Instead, an assignment is sought on an “as needed” basis, with students being given the opportunity to review, understand, and obtain advice about the assignment, as well as the freedom to choose not to assign, in which case the student is excluded from the project which necessitates an assignment and participates in a project of equal merit where no assignment is necessary.

Special issues in relation to visiting scientists

A visiting scientist is a person employed by one RO, who visits and carries out research at another RO, called a host RO.

A host RO’s IP policy often states that it will own the IP created by a visiting scientist.

However, if the visiting scientist at the host RO continues research on a project that originates from the visiting scientist’s employer RO, the employer RO will not want the IP from its project to be

owned by the host RO. This causes the ownership of IP to be fragmented, which may impede its commercialisation.

Similarly, if the visiting scientist at the host RO undertakes research on a project that originates from the host RO, the host RO will not want IP from its project being owned by the employer RO. An employer RO is not bound by the IP policy of the host RO, as it is not a party to any contract that incorporates it by reference.

An employer RO that is located in another state or country is not bound by the laws operating in the host RO's state or country, and is therefore not bound by any legislative based IP policy that the host RO may have.

A visiting scientist may be asked by the host RO to sign a document that incorporates the host RO's IP policy by reference, or a document that assigns any IP which is created while a visiting scientist.

However, both such documents are unlikely to result in the host RO owning the IP created by the visiting scientist.

This is because the employment contract between the visiting scientist and the employer RO usually provides that the employer RO owns all the IP created by the visiting scientist, who is its employee. The visiting scientist therefore does not own the IP created at the host RO, and not owning it means that the visiting scientist does not have the power or capacity to assign it to the host RO. Any assignment signed by the visiting scientist is therefore ineffective.

An IP Policy is not a legal document – it relies on legal documents for implementation

For these reasons, it is very difficult to ensure that an RO's IP policy is legally binding in relation to all its staff members, students, and visiting scientists. It may bind some of them. But, it is hard to conceive that it will bind all of them.

A mistaken belief that it is binding could lead to a mistaken belief that an RO owns IP. Acting on that mistaken belief by entering into a license or other agreement could expose the RO to considerable liabilities. To avoid the potential liabilities, an IP policy should be regarded as just that – a policy - which of itself does not have legal effect, but which relies on legal documents being put in place for the policy's implementation.

That implementation is then a separate matter, to be achieved by legally binding documents:

1. in relation to staff: the required terms in the employment contract;
2. in relation to students: on a "as needed" basis, the required terms in an assignment document, which is signed by the student employing a process that ensures that there is no unfairness or unconscionability; and
3. in relation to visiting scientists: on a "as needed" basis, an agreement between the RO that employs the visiting scientist, and RO that hosts the visiting scientist, recording their agreement on the ownership of IP created by the visiting scientist while at the host RO.

A caution about best practice when considering the policies of other Ros

When preparing an IP policy it is prudent to consider the IP policies of other ROs. Doing so, and being informed about how other ROs deal with particular issues in their own IP policies can inform, and assist ascertaining best practice.

But there is a need to be cautious. If another RO's IP policy assumes that its IP policy is legally effective, and that by force of the policy itself the RO owns IP, which in fact it may not, that RO could be exposed to legal liabilities. Being guided by such a policy in formulating one's own policy might not be duplicating best practice, but in fact might be duplicating worst practice.

2.4 Who Should Own the New IP under an MTA?

Introduction

Under a material transfer agreement (MTA) an owner of material provides a sample of that material to the recipient. The material with which the MTA is concerned may be:

1. biological (a compound, an antibody, a protein, a cell line, etc), or
2. non-biological (an alloy etc),

The recipient's use of the material may lead to the creation of new intellectual property and data.

Who should own the New IP and Data under an MTA depends on the nature of the MTA, the identity of the parties, and the purposes for which the material was provided by the owner.

For present purposes, Data refers to data arising from experiments upon or with the material, and New IP refers to new inventions and discoveries, as well as unpatentable know how.

Material provided by research organisation as a service to the research community

When a university or research organisation provides material as a service to the research community, the MTA will often be silent about the ownership of New IP and Data created by the recipient. That being so, the recipient, as the employer of the researchers that created the New IP and Data, will own the New IP and Data.

This silence on the issue is intentional. When a university owner provides its material to a university recipient, it would normally be regarded as intolerable for the university owner to do so on condition that the recipient university surrender its ownership of the New IP or Data that it creates. It would hardly be a service to the research community in that case.

The Uniform Biological Material Transfer Agreement is a master agreement which many US universities and research organisations have adopted and signed up to. It sets out the agreed terms that those US universities and research organisations have agreed are appropriate for the

transfer of biological materials between them, when that occurs as a service to the research community. It is silent about the ownership of New IP and Data, leaving these therefore to be owned by the recipient. It does however, in relation to biological materials, provide that the owner will own any new unmodified derivatives of the material, and that the recipient will own any modified derivatives of the material.

Provided by licensor to prospective licensee for evaluation purposes

The situation is different if an owner provides material to a recipient to enable the recipient to evaluate it, for example, to enable the recipient to undertake a due diligence on whether it may have interest in seeking a license of the intellectual property with which the material is associated. In this type of MTA, the ownership of both Data and New IP need to be considered.

The ownership of the Data is not necessarily the most important issue. What is more important is that the Data is disclosed to the owner, as the owner is vitally interested in the results of the tests and analysis to which the Recipient has put the material.

What is also important is that the owner has the ability to use that Data, for example, to support a patent application. This can be secured by the Recipient licensing the Data to the owner, in either case, for no payment.

Also important is that the recipient is bound by obligations of confidentiality to the owner, in relation to the Data.

Although New IP is not expected to arise in the course of the recipient's evaluation, it might. The recipient's scientists may, in the course of the evaluation, testing and analysis undertaken, conceive of an invention. Or they may create unpatentable know how. Inventiveness by the recipient cannot be stopped, and it cannot be precluded.

Who should own this New IP?

Most often an MTA in these circumstances is also silent on the issue. In this case, again, the recipient will own any New IP that arises. This is the result of the owner's commercial assessment that:

1. it is unlikely or even remote that New IP will arise, and
2. if the owner required the recipient to assign any such New IP to the owner, this would complicate the negotiation and finalisation of the MTA, delay the recipient's due diligence, and delay the finalisation of the license that it is hoped eventuates.

The occasions will be few and far between, but it may arise that an owner would be so prejudiced by the recipient owning New IP, that it must address that issue, even if it delays the MTA being finalised.

The owner's options are, in descending order of difficulty, to require the recipient to:

1. assign the New IP to the owner (most difficult)

2. grant an exclusive worldwide royalty free license of the New IP, with the right to sub-license
3. grant a non-exclusive worldwide royalty free license of the New IP, with the right to sub-license
4. grant a right of first refusal or option to negotiate such an exclusive or non-exclusive license (easiest, but may still be difficult).

Rights of first refusal and options to negotiate carry their own challenges, see [Rights of First Refusal and Options to Negotiate: Are They Legal?](#).

Provided by company to university or research organisation

Universities sometimes request companies to provide their materials to them for research purposes.

Again, the matter of the ownership or rights to use Data is easily dealt with a royalty free licence. In this type of MTA the question of the ownership of the New IP cannot be avoided, and must be dealt with.

Often, the company owner of the material will be concerned that it is not prejudiced by the New IP that the university recipient might create. This prejudice might occur where the university might as a result of its research with the material own a critical or vital piece of New IP. The result might be that the company will now have to license in that New IP, introducing an overhead to its business. Where the New IP was within the capability of the company to create, the company's position might be reasonable.

However, where the New IP was not in the company's capability to create, either because it lacked the innovative staff, or lacked access to specialist equipment, or lacked resources, etc, the company's position may be less reasonable.

Most companies will not seek to own the university recipient's New IP, appreciating that this would be unlikely to be agreed to.

Instead, they will usually be content with having an option or right of first refusal to negotiate a license to the New IP. This is a fair way to approach all MTAs where a company is the provider and a university is the recipient. After all, the university is applying its own resources, and the innovation and inventiveness of its staff, and undertaking the research at its own expense.

Again, these rights of first refusal and options to negotiate carry their own challenges, see [Rights of First Refusal and Options to Negotiate: Are They Legal?](#).

Another possibility that might be considered is that the New IP be jointly owned. This however will most likely disadvantage the university, and may sometimes disadvantage both the university and the company. See [Joint Ownership of Patents Does Not Result in Joint Benefits](#).

3. LICENSING

3.1 The Hardest Part of a License to Negotiate – Diligence Obligations

What are Diligence Obligations?

Diligence obligations are license terms that provide for the minimum commercialisation that the licensee must undertake.

For a mature technology whose products are close to market launch, or are already in the market, diligence obligations will often be minimum product sales that the licensee must achieve. These minimum product sales are a proxy for the minimum royalties that the licensor expects.

For a technology in development at the time of the license, such as technology licensed from a university or research organisation, other types of diligence obligations may be more appropriate – more on that later.

Why are diligence obligations so hard to negotiate?

A breach of the terms of a license may ultimately lead to the termination of the license.

Diligence terms in a license are no different. The failure to achieve or perform diligence obligations ultimately leads to termination. After termination, the licensor is free to grant an exclusive license to an alternative licensee that is better able to commercialise and achieve diligence obligations. The prospect of termination is why diligence obligations are so hard to negotiate.

A licensee that invests significant monies in developing technology to market readiness, travelling any clinical or other regulatory pathway, setting up manufacturing facilities, and marketing. Termination for the failure to achieve diligence obligations means that this significant investment is lost.

Licensees will not unexpectedly resist diligence obligations being included in the terms of a license. Diligence obligations are harder to negotiate than the financial terms of a license. A license expects a license to include royalty and other financial terms. But a licensee does not want diligence obligations included in a license at all.

The risk of not having diligence obligations in a license

A license without diligence obligations means that a licensor must accept an underperforming licensee, and even an idle licensee, and can do nothing about the underperformance or idleness. The licensor may be receiving little royalties, or even no royalties, but can do nothing.

A licensee's underperformance or idleness may occur even with the best intentioned licensee. As time passes, the licensee may have resources to commercialise only its top two ranking projects, and the licensee ranks third. Prudent commercial decision making on the part of the licensee requires that it not spread its finite resources too thinly, but allocates them to the two top ranking projects.

"Best endeavours" obligations

"Best endeavours" obligations are not a satisfactory alternative to diligence obligations.

The point of having diligence obligations is to be able to terminate the license of an underperforming or idle licensee. All that "best endeavours" and the less onerous "reasonable endeavours" will do is ensure a dispute arises about what they mean in the context of the specific license.

A licensee's typical response to termination purportedly on the ground of breaching these types of obligations is to dispute the validity of the termination, and to carry on exercising the licensed rights.

If a licensor wants to press the matter all it can do is to litigate, seeking a court determination whether the termination was valid or not. That can take years.

In the meantime the licensor is unable to license anyone else, which is what it had wanted to do by having terminated.

Diligence obligations need to be crisp and precise so that there is no controversy about whether the diligence obligation has been achieved or complied with – more on this later.

Strategies that don't work when negotiating diligence obligations

A common approach by a licensor seeking diligence obligations is to simply propose what the licensor seeks. What is proposed is often artificially assessed, or even "plucked out of the air" without any commercial assessment of the market, any competitor analysis, or analysis of competitors' market shares.

The artificiality of the proposal makes it doomed. What ensues is not a negotiation over quantities or amounts or the like, but resistance to having any diligence obligations at all.

Where this approach is taken, there is a high probability of the licensor conceding, and dropping the matter.

There needs to be a strategy that involves more than merely proposing diligence obligations.

Strategies that do work when negotiating Diligence Obligations

There are two ways of removing the artificiality of a proposal for diligence obligations.

The first is that the licensor undertakes a robust assessment of the market, a robust competitor analysis, and a robust market share analysis, including its dynamics over time.

This equips the licensor to make robust proposals which are not so easily resisted or dismissed. But, most licensors do not necessarily have the skills, time, or resources to undertake these tasks.

The second way is to ask the licensee to submit a written Project Plan to the licensor, as part of the licensor's process of qualifying a licensee. This Project Plan will then form the basis of the licensor's proposal for diligence obligations.

The timing and mechanics of this are critical to the success of this strategy – more on this later.

The Project Plan which the licensee submits must set out the licensee's plan for commercialising the technology proposed to be licensed. The licensor will need to provide guidance to the licensee of what it expects the Project Plan to include. Some examples are:

- What further research will be done, by whom, in what timeframe, with what anticipated outcomes?
- What development, clinical and regulatory work will be done, by whom, in what timeframe, with what anticipated outcomes?
- When will market launch take place in each key market?
- If the licensee does not have demonstrated capability to itself take products to a key market, how will it get that capability?
- If the licensee will rely upon strategic alliances or sub-licensees to service a key market, are these already in place, or how will they be put in place, and in what timeframe?
- Does the licensee have the particular skills or equipment or resources to be able to commercialise? If not, when and how will it obtain these, and in what time frame?
- If the technology is fully developed or full development is on the horizon, what sales forecasts does the licensee make?
- Does the licensee have the monetary resources to do all the above? If not, where and how will it obtain those resources?

The Project Plan is intentionally not called a business plan, which is a different type of document.

A Project Plan does not need to be lengthy. Most Project Plans come in at 10 to 15 pages. They rely on a prospective licensee's existing knowledge, and the licensee's assessment, and considered reflection on its existing knowledge. It therefore should not be a time consuming task for a prospective licensee to undertake.

There are two factors which when present will ensure that acceptable diligence obligations can be formulated and proposed, and which will assist a licensor to secure diligence obligations in the license.

The absence of either factor will pretty much ensure that diligence obligations are unlikely to be successfully negotiated, and the most likely outcome is the licensor conceding and dropping the matter.

The first is timing.

If a Project Plan is requested during the negotiation, the licensee believing that it is already a qualified licensee, will procrastinate preparing a Project Plan, or simple not do one. If it does one, it might be so poor as to not be useful to the licensor wanting to formulate diligence obligations. A Project Plan needs to be requested well before negotiations start, during the phase that the prospective licensee is being qualified, or believes that it is being qualified. This will ensure that the licensee prepares the Project Plan more robustly than otherwise, and will ensure that the Project Plan demonstrates the prospective licensee's capability to commercialise. This will enable diligence obligations to be formulated by the licensor. A licensor may formulate diligence obligations drawn wholly or partly from the Project Plan. The licensee will find it difficult to resist diligence obligations based on its own representations of its capability and its own timeframes.

The second is procedure.

If a prospective licensee believes that the request for a Project Plan is a requirement of the licensor's staff member, as opposed to being a requirement of the licensor itself, it will be more likely to dismiss the request, or procrastinate, or to prepare a poor plan that is not useful.

In contrast, if the licensor has a procedure for qualifying a licensee, and that procedure includes the consideration of a prospective licensee's Project Plan, for example, by a Commercialisation Committee, the licensee wanting to become qualified and for negotiations to start, will prepare a Project Plan that is more robust than otherwise, and which can therefore be usefully used to formulate and secure diligence obligations.

Types of diligence obligations

There are many types of diligence obligations, and there are a myriad of ways in which they can be provided for.

No one way is necessarily better or superior to another. They can all be useful. Having regard to the technology, and its state of development at the time of negotiating the license, some ways may be more advantageous than others, or may be easier to negotiate than others.

The two main types of diligence obligations are:

1. obligations that a licensee travel along the development pathway to market, and
2. obligations that a licensee achieve a stipulated level of success in the market, which is aimed at ensuring that the licensor receives a minimum level of remuneration.

The most common way of framing diligence obligations is stipulating:

1. milestones or events that a licensee must achieve, and
2. minimum product sales.

Technology in development

If at the time of negotiating the license the technology is still in development, a licensor needs to

ensure that the licensee travels the development pathway expeditiously, or at least at an acceptable pace.

Further research may be needed, and the licensor wants to ensure that the licensee undertakes that research.

Product development may need to be undertaken to transform technology into a product, and the licensor wants to ensure that the licensee undertakes that product development.

A regulatory or clinical pathway may need to be travelled, and the licensor wants the licensee to travel it.

A regulatory approval may be needed and the licensor wants to ensure that the licensee obtains it.

Technology in development - mature

Where a technology is at a relatively mature stage of development so that a product launch can be anticipated on the horizon, say between 1 and 3 years, milestones with dates by which they are to be achieved are often employed.

For an engineering technology for example, milestones might be:

- the completion of specified research
- the completion of specified product development
- producing a prototype
- conducting a trial
- completing a pilot plant
- obtaining a regulatory approval
- the first sale of a product in [key market #1]
- the first sale of a product in [key market #2].

These are just examples. There are numerous other milestones which might be formulated having regard to the specific technology and its stage of development. Milestones need to be written much more precisely than these examples are.

The more mature the technology, and the closer the time is to product launch, the fewer the milestones to be specified.

Generally, the number of milestones to be achieved should be a modest number – perhaps 4 to 6. The greater the number the more difficult the negotiation. Sometimes, a milestone may be omitted, in the confidence that it will be achieved if another milestone that is included is achieved. Some milestones may be merged with another milestone. For example, in the list above, producing a working prototype could be a component of the completion of product development, instead of being a stand-alone milestone.

For technology that is fully developed, or where the completion of development is so close, there might be only one milestone, and that is the date of the first arm's length sale of a product, which is effectively a product launch.

Technology in development – early stage

For technology that is licensed at a very early stage, with market launch being much further away, say 3 years or more, milestones from the time of the license right up to product launch will be very unlikely to be agreed to by a licensee. The timeframe is too long and unpredictable, and the licensee's investment too great, for a licensee to be able to agree to milestones extending out so far.

But this does not mean that milestones cannot be negotiated. Milestones relating to events on the short term to medium horizon should still be able to be negotiated.

Technology in development – pharmaceutical

For a pharmaceutical technology licensed at any early stage, milestones on the short term to medium horizon may be:

- completing animal studies
- completing toxicology studies
- filing an IND (or equivalent) with the FDA (or equivalent)
- enrolling the first subject in a Phase I clinical trial.

When licensing an early stage pharmaceutical technology it will be optimistic for milestones to go any further than what can be expected to be achieved in the 2 to 3 years following the grant of the license.

It is true that the licensor is not protected from an underperforming or idle licensee for the period after the last milestone. But that is the nature of early stage licensing. Confidence has to be placed in the licensee by this time having made such an investment, that it is motivated to continue along the clinical pathway.

A licensee of a pharmaceutical technology such as a biotech company that wants to further develop it, and then sub-license it to a pharmaceutical company will be concerned that milestones being stipulated in the license will deter a pharmaceutical company from having interest in a sub-license. This is not an unreasonable concern. Milestones in such a license to a biotech company may therefore be confined to milestones that are anticipated to be achieved during the period of the biotech company's further development, with an overriding provision that the obligation to achieve milestones ceases upon the grant of a sub-license to a pharmaceutical company. The result is that there cannot be any impact on a pharmaceutical company's willingness to take a sub-license.

Other events

All the examples so far illustrate milestones that relate to the technology. But milestones do not need to be confined to these. Milestones may for example be commercial events.

If a licensee lacks capability in a key market, a milestone may be granting a sub-license to a strategic alliance partner in that market.

If a licensee needs to have on its staff a person with particular skills and expertise, a milestone may be employing a person with those skills, for example, to be the CEO.

If a licensee is a start-up company without the capital to progress the technology, a milestone may be procuring and receiving a minimum capital investment.

Minimum license payments

For the period commencing after product launch, a different type of diligence obligation is necessary – one that is aimed at ensuring that a licensor receives a minimum remuneration.

A common mechanism is to provide for minimum royalties. This works by stipulating the minimum royalties payable. If actual royalties based on actual product sales fall short of the minimum, the licensee must pay the shortfall in addition to the actual royalties.

A disadvantage of this mechanism is that a licensee may be very successful in one region of the licensed territory, but underperform or be idle in other regions. Having achieved sales for actual royalties that exceed minimum royalties, there is nothing that a licensor can do about the underperformance or idleness in the neglected regions.

An alternative approach to minimum royalties is to define separate regions in the licensed territory, such as a country or group of countries, and to specify minimum sales quantities that must be achieved in each region. This is a proxy for the minimum license remuneration that the licensor will receive in each region, ensuring that there is no underperformance or idleness in any region.

These minimum sales levels can be approached in many ways, including:

1. specifying the applicable fixed quantity for each region of the territory, for each applicable period, such as each year of the license term,
2. a ramped-up model, with increasing quantities for each region, for each period, until an agreed level
3. a sales holiday being included, where no minimum sales must be achieved in say the first 6 or 12 months, followed by fixed or ramped up minimum quantities.

For a new technology where sales levels cannot be predicted at all, a milestone approach can be used, where the milestone is spending a minimum stipulated amount on the implementation of a marketing plan.

Some approaches and links to example agreements

The most commonly employed approach to diligence obligations is to provide that a licensee must use “commercially reasonable efforts” to for example, commercialise. In some negotiations, that is all that can be achieved. But an underperforming or idle licensee will dispute any complaint that it has not used commercially reasonable efforts, and this may take years to resolve. This does not allow a licensor to confidently terminate the license and seek another licensee that is able to perform, which is what the purpose of diligence obligations is.

However common this unsatisfactory mechanism is, there are also many examples of more precise and reliable diligence obligations being negotiated.

There are at least 3 possible approaches, all of which will work more satisfactorily:

The first is employing the vague “commercially reasonable efforts” mechanism but then defining it by reference to specific milestones or activity that must be achieved.

Example

[Whitehead Institute for Biomedical Research \(licensor\) and Rubius Therapeutics \(licensee\)](#). (2016) License of pharmaceutical, clause 3.2.

The second is not employing the unreliable phrase at all, but instead framing precise milestones with precisely framed timeframes for their achievement.

Examples

[Memorial Sloan-Kettering Cancer Center \(licensor\) and Y-mAbs Therapeutics \(licensee\)](#). (2015). License of antibody. Clause 4 requires clinical milestones to be achieved, from the end of Phase 1 until regulatory approval, with stipulated dates for achievement.

[Evogene \(licensor\) and Monsanto \(licensee\)](#) (2015). License of genetically modified crops. Clause 5.10 requires Monsanto to undertake certain trials and tests within stipulated timeframes.

The third is a combination of both 1 and 2.

Examples:

[FB Health S.p.A \(licensor\) and Alzheon, INC \(licensee\)](#) (2013). License of pharmaceutical. Clause 3.1.2(a) refers to the general “commercially reasonable efforts”. Clause 3.1.2(b) and (c) require the commencement of a clinical study by a stipulated date.

[Whitehead Institute for Biomedical Research \(licensor\) and Rubius Therapeutics \(licensee\)](#) of Pharmaceutical. Clause 3.1(iii) requires the filing of an IND within a stipulated time.

Why is termination necessary?

The point of diligence obligations is to protect a licensor from an underperforming or idle licensee that is not adequately commercialising.

Inadequate commercialisation, or no commercialisation at all means that a licensor is receiving little royalties, or even no royalties.

A licensor wants its licensee to be diligent, to maximise the commercialisation opportunity, and to maximise the financial return from the license.

If the licensee is not diligent and is not maximising the financial return to the licensor, a licensor can either do nothing and allow that to continue, or it can seek out another licensee that does have the capability to maximise the commercialisation opportunity, and to maximise the financial return from the license.

To grant an exclusive license to such an alternative licensee, the licensor must first terminate the license of the underperforming or idle first licensee.

Model 1 – immediate termination

In this model a licensor immediately terminates the license if the licensee fails to achieve a commercialisation milestone by its due date. An “events of default” provision in a license is an example of this model.

This model might be considered for a commercialisation milestone that is on the short term horizon. An example is a milestone that the licensee enter into an agreement within 3 months of the date of the license for toxicology studies to be undertaken. Another example is that the licensee file an application for a regulatory approval within 3 months of the date of the license. It is the certainty of the achievement of the milestone in the short term that makes this model one that may fairly be considered.

For other types of milestones, such as development, regulatory or clinical milestones, where there is uncertainty about the time for their achievement, this model would be considered draconian, and it would be very difficult to negotiate.

Model 2 – termination after notice to remedy

In this model the failure to achieve a commercialisation milestone by its due date is grounds to issue a notice to remedy, allowing an agreed period, such as 35 days, for the milestone to be achieved. If the milestone is not achieved within the period allowed, then on the expiration of that period, the license may be terminated.

This notice to remedy followed by termination model is a common termination provision in a license, and applies to all types of breaches.

While this model might be acceptable for commercialisation milestones on the short term horizon where there is certainty of their achievement, like in Model 1, it would be considered too draconian for other commercialisation milestones that are anticipated 1 or 2 years down the development path.

The achievement of commercialisation milestones that far down the path cannot be forecast with precision. To be fair, even a 35 day extension for the achievement of the milestone may be inadequate.

As with Model 1, this model will also be very difficult to negotiate for any commercialisation milestones other than the initial one (or two) milestones where there is certainty of achievement on the immediate short term horizon.

Model 3 – termination after extensions are exhausted

Where commercialisation milestones have dates for achievement that are 6, 12, 18 or more months down the track, and where there cannot be any greater certainty of their dates for achievement other than approximate dates, there is a need for a termination model that fairly treats the licensee, and allows for extensions of time for the achievement of milestones.

A licensee otherwise, faced with no mechanism for the extension of the due dates for the achievement of milestones will be disinclined to invest in the further development required, and perhaps even disinclined to take a license at all.

A model that builds in some flexibility for the licensee is one that permits extensions of time for the achievement of milestones.

An example is a model where the licensee may unilaterally determine the duration of the extension, as well as unilaterally invoke extensions on any number of occasions that the licensee decides – but with a proviso.

The proviso is that the aggregate duration of all extensions invoked by the licensee is an agreed period such as 6, 9, or 12 months, and that once the licensee has exhausted that aggregate duration, the licensor's right to termination arises.

No termination is permitted until that period is exhausted. But once exhausted, with the licensee having no further right to unilaterally invoke extensions, the licensor can terminate the license and seek out an alternative licensee.

Model 4 – termination after discretionary and mandatory extensions

An alternative model relies on the licensee seeking extensions, which the licensor has a discretion to give or to decline, and with the licensee having the right to invoke a maximum number of mandatory extensions if the discretionary extension is declined.

The licensee can seek any number of extensions it decides. The licensor can agree to all of them, some of them, or none of them.

If the licensor declines to give a discretionary extension, the licensee can unilaterally invoke a mandatory extension of say, up to 3 months.

The licensee can invoke a mandatory extension in this way on an agreed number of occasions, such as three.

If the licensee has exhausted its mandatory extensions, a milestone is not achieved by its due date (or extended due date), and the licensor declines to give a discretionary extension, then the licensor may terminate the license.

As with Model 3, the licensee is assured that termination does not occur in a draconian or unfair manner.

Conclusion

It is critical that a license include diligence obligations, to protect a licensor from an underperforming or idle licensee, and that those diligence obligations, if unmet, ultimately lead to the termination of the license.

But it is equally critical that termination operate fairly and not be draconian, nor disincentivise a licensee.

3.2 The Hard Issues in an Exclusive Field License

Introduction

Field licenses can be difficult to negotiate.

Some of the negotiation challenges arise because of the law that impacts upon a field license.

Some of them arise because of the tensions that will always occur between an exclusive field licensee, that seeks and expects all the rights typically to be found in an exclusive license, and a licensor which retains rights outside the field, and therefore seeks to retain some of the rights that ordinarily would have been conferred on an exclusive licensee.

Patent prosecution and decision making

An exclusive licensee that has rights to all fields of application of the licensed IP, without any field restriction, will often seek to have the carriage of the prosecution of patents, as well as seek the freedom and discretions to make all decisions in relation to the prosecution of patents, including the scope of claims to be pursued, the negotiation of claims with examiners, the countries in which to pursue the grant of patents, as well as the conduct of opposition proceedings.

An exclusive licensee in a field will often expect the same rights.

This may conflict with the licensor's interests. The licensor retains rights to the IP outside the field. The licensor will therefore want patent prosecution decision making to be responsive to its own needs outside the field.

An exclusive licensee in a field that controls the prosecution of patents will primarily be motivated to make decisions having regard to its own interests in the licensed field. It will be less sensitive to the needs outside the field that are retained by the licensor. It may even not recognise that decisions it makes in relation to its own interests in its own field may impact negatively upon the licensor's interests outside the field.

So, how is this dilemma resolved?

Prosecuting patents jointly, and jointly making decisions does not work. Patent prosecution “by committee” presumes that the parties will always have consensus on what is to be done. This would not normally be an acceptable option to either the licensor or the licensee.

A mechanism for sharing information and consultation in relation to patent prosecution may be agreed. At the end of the day however, in the absence of consensus, one party will have to solely make patent prosecution decisions. Which party that will be will largely be determined by the relative bargaining strengths of the licensor and the licensee.

A major factor influencing that negotiation will be the comparative value of the IP in the licensed field and the value of the IP outside the field. If the greater value is represented by the field that is licensed, the licensee may have the superior bargaining power to persuade that it should prosecute the patents and make decisions. If the licensor’s retained rights outside the field have the greater value, it should be in the stronger position to negotiate retaining the right to prosecute patents and make decisions.

Patent prosecution costs

Patent prosecution costs can be expensive. If there are opposition proceedings, the cost of the proceedings can make the cost of prosecuting the patent significantly greater.

A field licensee that is prosecuting patents will recognise that the benefit of the prosecution accrues not just to itself, but to the licensor as well. It may want patent costs to be shared, with the licensor reimbursing to the licensee one half of the costs or some other proportion. If the IP lent itself to three fields, the licensee might seek reimbursement of two-thirds of the costs.

If the licensor is prosecuting the patents, the issue is in the same, in reverse.

From the licensor’s point of view there is a further issue. While multiple field licensees may be anticipated, the reality is that there may only ever be one license ever granted. In that event, the field licensee being the only party to benefit, it should pay the whole of the patent prosecution costs.

There is a solution: the first field licensee pays or reimburses 100% of the patent prosecution costs incurred, recognising that this first field license may be the only license ever granted. If a second field license should subsequently be granted, the licensor refunds to the licensee 50% of the past expenses, which the licensor must recoup from the second field licensee. From that time, patent prosecution expenses, as well as patent maintenance expenses, are then shared 50% by the two field licensees. If a third field license should be granted, another similar adjustment would be made.

Of course, a 50% split, or a split by another percentage is arbitrary, and it bears no relationship to the different values of the IP in the different fields. But being arbitrary for what is after all a relatively modest cost in the whole scheme of things, does not necessarily produce an unfair result.

Prosecuting infringers

An exclusive licensee granted rights in a field will want to be able to prosecute an infringer of the licensed IP. A licensee protecting its exclusive rights by prosecuting infringers is a core right that all exclusive licensees want to have.

But a licensee that is exclusively licensed in a field does not have this right.

The patent legislation of most countries requires the party prosecuting an infringer to have all the rights granted by the patent being infringed.

This can only be:

1. the patent owner, or
2. an exclusive licensee under a license without a field restriction.

An exclusive license in a field grants only some of the patent's rights, not all of them.

An exclusive license in a field is therefore regarded, for the purpose of maintaining proceedings, a non-exclusive license.

A field licensee, just like a non-exclusive licensee, lacks standing, or legal capacity, to bring infringement proceedings.

To overcome this issue of standing or capacity, a field licensee that commences proceedings against an infringer will join the licensor as a party to the infringement proceedings, so that the requisite standing against the infringer is provided.

A licensor may therefore seek an indemnity from the licensee in relation to the legal fees that the licensor will as a result incur. A field licensee should be receptive to providing such an indemnity, to the extent that the licensor is passive in the proceedings, incurring minimal legal fees, and leaving the field licensee to make decisions concerning the proceedings.

If a licensor takes a more active role in the proceedings, for example, to protect its interests outside the field, it will incur more substantial legal fees which the prosecuting field licensee in that case may be unwilling to cover.

3.3 Can a Licensor Warrant that it Owns the IP it licenses?

Introduction

All IP licenses need to address the questions of warranties. Amongst the warranties that a licensee may expect is a warranty by the licensor that it owns the IP that is licensed.

From the licensee's perspective, but for such a warranty that the licensor owns the IP, why would the licensee pay royalties or other remuneration to the licensor?

But, can a licensor actually warrant that it owns the IP that it licenses?

1. Warranty of ownership in relation to patent applications

Let's consider a license granted at the time that there is a pending patent application. The patent has not been granted yet. A warranty therefore cannot be made that the patent is owned, since it doesn't exist yet.

A licensee may seek warranties that:

1. the licensor owns the inventions and discoveries encompassed in the patent application,
2. the licensor will own the patent that eventually is anticipated will be granted.

Can a licensor make these warranties?

Consider:

1. The licensor grants a license for an up-front payment of \$100,000 and a royalty of 5%.

After the date of the license it emerges that another patent applicant has applied for a patent over the same invention, and that application has an earlier priority date. The result is that the competing patent applicant will be granted the patent, not our licensor.

The licensee has spent \$5 million in further development of the licensed IP.

If the licensor had warranted that it owned the inventions and discoveries in the pending patent application, they having turned out to be owned by the competing patent applicant, the licensor would be in breach of the warranty, and will now be liable to the licensee for its loss of \$5 million.

Would the licensor have granted the license warranting that it owned the IP, given that risk?

2. Again, the licensor grants a license for an up-front payment of \$100,000 and a royalty of 5%.

This time, in the course of the prosecution of the patent application, the patent examiner discovers prior art and the patent is not granted.

Again, the licensee has spent \$5 million in further development of the licensed IP.

Again, if the licensor had warranted that it owned the inventions and discoveries in the pending patent application, they having turned out not to be novel, with therefore no patent being issued, the licensor would be in breach of the warranty, and will now be liable to the licensee for its loss of \$5 million.

3. Again, the licensor grants a license for an up-front payment of \$100,000 and a royalty of 5%.

This time, the patent is granted. However, in post grant opposition proceedings, or in revocation proceedings, prior art is discovered, and the patent is revoked.

Again, the licensee has spent \$5 million in further development of the licensed IP. As well, the licensor anticipates lost profits for the expected remaining life of the patent, had it not been revoked, of \$50 million.

Again, if the licensor had warranted that it owned the inventions and discoveries in the pending patent application, but they having turned out not to be novel, the licensor does not own those inventions.

Again the licensor would be in breach of the warranty, and will now be liable to the licensee for its loss of \$5 million, and possibly liable for the additional \$50 million of lost profits as well.

In each case, the licensor will be shocked by its prospective liability arising from its breach of its warranty that it owned the inventions and discoveries encompassed in a patent application. Indeed, such a licensor might have preferred not to grant the license, rather than having the prospective liability for breach of warranty.

A licensor negating warranties, that is, stating that it makes no warranties, does not manage its risks. Courts may imply terms into a license, and will have no difficulty implying warranties. The risk of negating warranties is that a court may imply warranties that are broader than a licensor might have agreed to. The issue of warranties therefore needs to be squarely addressed in a license. Addressing the issue first requires that there be an allocation of risk, as between the licensor and the licensee.

Who is best placed to take the risks in our three examples? Who is best placed to make commercial decisions to expend monies knowing those risks? Corresponding to these questions, would a licensor be expected to run the risk, on our example, of a \$5 million liability, if its only definite upside was \$100,000. A licensor in those circumstances might have been deterred from running those risks, and therefore deterred from granting the license at all.

Commercially, these are risks that are better able to be managed by a licensee. The licensee already runs the commercial risk of having a freedom to operate obstacle, with the need to license-in a third party's patent. That commercial risk is no greater than the commercial risks in our three examples.

But a licensee expects a warranty that the licensor is not knowingly licensing someone else's IP.

That is not unreasonable.

This is why warranties about ownership of IP are typically framed as being made to the best of the licensor's actual knowledge. If the licensor's (and its employees) actual knowledge is that the licensed IP was actually developed by someone else, the warranty will be breached. But if to their actual knowledge they developed the IP, and it was not developed by another person, the making of a warranty by the licensor that to the best of its actual knowledge it owns the licensed IP, will not involve the risks of liabilities in our three examples.

If a licensor has knowledge of a competing patent applicant, for example, by its knowledge of the scientific literature, then it would be prudent to disclose this, and to make the best of actual knowledge warranty subject to that disclosure.

2. Warranty of ownership in relation to granted patents

Can a licensor warrant, without qualification, that it owns a granted patent?

The patent has issued. It is an asset. If the warranty is made, without qualification, would the licensor be in breach of the warranty if the granted patent was later revoked, having been found invalid? That risk to the licensor suggests that the warranty should similarly be made with the best of actual knowledge qualification.

3. Warranty of ownership in relation to software code

For the reasons described in relation to patent applications, should a licensor warrant that to the best of its actual knowledge it owns the copyright in software code?

Such a warranty would not be acceptable to a licensee.

The nature of copyright is quite different to the nature of an invention or discovery. You can never know whether another person is working on the same science, and making the same invention or discovery. That is the nature of science.

But that is not the case for copyright. For copyright to subsist, the copyright work must be original. That is invariably another warranty that a licensor customarily makes when licensing a copyright work – that it is an original work.

It therefore cannot follow that a licensor warrants that to the best of its knowledge it owns a copyright work. That is tantamount to saying that “To the best of my knowledge I have not copied this copyright work from another person”. That would be an unacceptable warranty for a licensee to accept.

Customarily therefore, a warranty by a licensor that it owns copyright is made in absolute terms, and is not made on a best of actual knowledge basis.

4. Warranty of ownership in relation to a software patent

So, how should warranties be framed in relation to software patents being licensed?
If the subject matter of the license are both:

1. patents, then all the remarks in sections 1 and 2 are relevant, and the warranties, so far as they relate to the patents, should be made on a best of actual knowledge basis, and
2. computer code, then all the remarks in section 3 are relevant, and the warranties, so far as they relate to a copyright work, should be made on an unqualified basis.

3.4 Controversies in the Licensing of Future Improvements

What is an improvement?

In the context of a license, an improvement is something that improves the licensed technology. Unfortunately, an improvement can only be defined by employing similarly vague terms: an enhancement, modification, alteration, etc.

Despite this vagueness, what is an improvement is well understood, and for any specific technology can be readily recognised: it is knowledge that improves the technology that is the subject of a license.

The controversy in a license is not so much how to define it, but whether the improvement should be:

1. automatically licensed to the licensee, captured by the terms of the original license, without any additional financial compensation to the licensor, or
2. licensed, but only with some additional financial compensation to the licensor, such as an increase in a royalty rate or license fees.

Licensee's perspective

It is in a licensee's interest to be licensed improvements. To have access to improvements will enable to the licensee for example, to produce a better product, produce the product more efficiently, or at less cost. Whatever the improvement is, by definition, it must be to the licensee's advantage to have access to it. It might make the licensee more competitive, or it may contribute to an increase in sales, or other benefits.

A licensee will typically seek to have the original license make provision for:

1. an obligation upon the licensor to promptly disclose improvements to the licensee
2. the license to operate so that the improvement is licensed from the time of its creation, without the need to negotiate further terms nor to negotiate a variation to the original license
3. the improvement to be provided free of any obligation to pay additional royalties or license fees.

Licensor's perspective

It is also in the licensor's interest to license improvements to the licensee. A better equipped licensee may be able to sell more products, or sell them at an increased price, and in turn, this will translate into increased remuneration to the licensor, usually in the form of increased royalties.

A licensor however, will not so readily be prepared to assume that providing access to an improvement should always be without additional royalties or license fees.

Does an improvement justify additional royalties?

A licensor would normally agree with the principle that small incremental improvements to the licensed technology are unlikely, by themselves, to have a value that justifies additional royalties or license fees. But a licensor would be reluctant to assume that all improvements will be small incremental improvements that will not warrant a change to the financial terms.

An improvement may add such significant value to the licensed technology that it might not be equitable for it to be provided without additional remuneration.

Suppose a license is granted of a compound where research supports that it has properties to make it a candidate for a drug for the relief of back pain, applied topically, with a value assessed as attracting a 7% royalty. Suppose that the licensor's further research, undertaken at the licensor's own expense after the license is granted, indicates that the compound could additionally assist in the relief of osteoarthritis pain, and even more, indicates that it has a regenerative effect on joints affected by osteoarthritis, with a value assessed as commanding a 12% royalty. In these circumstances, it would not be equitable upon a licensor for royalties to be limited to 7% on sales of both a back pain drug as well as an osteoarthritis drug. The licensor's equitable remuneration should be a 7% royalty on sales of a back pain drug, and a royalty of 12% on sales of an osteoarthritis drug.

The improvement on this example, namely the further osteoarthritis clinical indication has an additional value of 5% (12% - 7%).

This analysis can be applied beyond biotechnology. The analysis equally applies across all scientific fields: to information technology, engineering technologies, medical devices, etc.

Boundary between improvements that do, and do not justify additional financial terms

More often, an improvement will be an incremental small improvement that does not merit any additional remuneration to a licensor. On these occasions, the license according to its original terms should facilitate the improvement being captured by the original terms of the license, and immediately licensed to the licensee, without additional royalties or license fees.

But from time to time the improvement will not be a small incremental one, but a major improvement that justifies the license not immediately capturing the improvement, and it being made available to the licensee only if the warranted additional remuneration is to be paid, in the form for example, of additional royalties or license fees.

So, where is the boundary up to which an improvement is automatically captured and licensed according to the original terms of the license, without additional financial compensation,

and beyond which it is not captured under the original terms of the license, but subject to negotiation, may be licensed to the licensee, for additional financial compensation?

Sometimes, the boundary is identified by reference to a test of infringement: Would the use of the improvement infringe the original licensed technology? If the answer is "Yes", it is automatically captured and licensed according to the original terms of the license, without additional financial compensation. If the answer is "No", it is not automatically captured, but subject to negotiation, may be licensed to the licensee, for additional financial compensation.

The trouble with this being the boundary is that it is hard to conceive of an improvement the use of which does not infringe the original licensed technology. By definition, being an improvement, it would have to.

An alternative boundary employs a test of novelty: Is there sufficient novelty in the improvement for the improvement to be separately patented? If the answer is "No", it is automatically captured and licensed according to the original terms of the license, without additional financial compensation. If the answer is "Yes", it is not automatically captured, but subject to negotiation, may be licensed to the licensee, for additional financial compensation.

The question of sufficient novelty may not be finally determined until a patent is examined, granted, and the relevant opposition period expired. But even then it is a more reliable test. Commercially, the licensor and licensee will make a decision about the likely outcome of the novelty test, and with the assistance of expert advice, it is likely that they will come to a shared view on whether there is sufficient novelty.

This test of novelty, to determine the boundary between a captured improvement that does not deserve additional financial compensation, and an uncaptured improvement that can be negotiated to be included in the license, with additional financial compensation, is a more reliable, and more equitable test to determine which side of the boundary an improvement lies.

3.5 Sub-Licensing: Controversies around Step-In Rights

Introduction

When a licensee grants a sub-license, apart from the usual need for the licensee to obtain the licensor's prior written consent (which is not to be unreasonably withheld) the other major issue is how to deal with Step In Rights. This can sometimes be controversial.

What are Step in Rights ?

Postulate:

1. a licensor grants a license to the licensee for the unexpired duration of the licensed patent

2. the licensee grants a sub-license to a sub-licensee for the same duration, the unexpired duration of the patent
3. one year later, the licensee breaches the license, and the licensor terminates the license
4. the patent will expire in 15 years time.

What is the position of the sub-licensee ? Does its sub-license continue, or is it terminated as well?

A licensee cannot grant any greater rights than the licensee itself has. A term in a sub-license which purports to continue the sub-license after the license from the licensor is terminated is ineffective.

A sub-license being entirely dependent on the licensee's license continuing, and coming to an end if the licensee's license comes to an end, the sub-license will want to address this in some way to ensure that its licensed rights continue.

It does this by having Step In Rights.

Sub-Licensee's perspective on Step in Rights

A sub-licensee will naturally want to "step in" to the licensee's "shoes". That is, the sub-licensee will want to have the original license to the licensee, re-issued to the sub-licensee, as a new license, on the same terms as the original license.

In this way, the sub-licensee "steps in" to the original license in substitution for the now terminated original licensee.

This will ensure the uninterrupted continuation of the sub-licensee's licensed rights.

This would be achieved at the time of entering into the sub-license, by the sub-licensee requiring an additional agreement between the sub-licensee, the licensee, and the licensor, providing for these step in rights.

It is only by having this 3-way agreement, to which the licensor is a party, that the sub-licensee can enforce its step in rights against the licensor.

Licensor's perspective on Step in Rights

A licensor may however have a different perspective.

Postulate:

1. the original license to the licensee provides for a royalty rate of 5%
2. the licensee grants a sub-license for a royalty rate of 7%.

The licensor may not have any concerns with step in rights as such. But the licensor will realise, as well as the sub-licensee realising:

1. if the sub-licensee steps into the licensee's position, the sub-licensee will experience a windfall, by having a reduction in its royalty rate from 7% to 5%, and
2. if alternatively the licensor steps into the licensee's position, it will be the licensor that experiences the windfall by having a royalty increase from 5% to 7%.

Resolving the controversy

Obviously, the sub-licensee will prefer to step into the licensee's position, and the licensor will prefer to step into the licensee's position.

How should this controversy be resolved? There may be significant amounts involved, given the unexpired duration of the patent.

The licensor might have an attractive argument that it makes more sense for the licensor to step into the licensee's position, rather than the reverse.

The original license may have been granted without a field limitation, operating worldwide. However, the sub-license may have been granted a license in a field, and a territory other than the whole world. If the sub-licensee stepped into the licensee's position, it would now be exercising licensed rights beyond its field, which might be beyond its capability, as well as exercising worldwide rights, which similarly might be beyond its capability.

Given those factors, it might be argued that the proper way of dealing with step in rights is for the licensor to step into the licensee's position, and that this universally should therefore be the position.

But of course the matter is highly negotiable. At the time of seeking consent to the grant of the sub-license, the sub-licensee might have the superior bargaining position, since only it might be able maximize the commercial opportunity to benefit the licensor. Or, the licensor may have the superior bargaining position, since its consent to the sub-license is required, and it may be obliged to consent (because there are no reasonable grounds to withhold it) but it is not obliged to agree to step in rights.

Improving the Licensor's position

The licensor's position, at the time that consent to the sub-license is sought, is therefore unpredictable.

To improve the licensor's position, rather than waiting to deal with this issue when consent to the grant of a sub-license is sought, the licensor could deal with it in the original license, providing that it will be the licensor that will step in to the licensee's shoes, and not the reverse, and that the licensor would be entitled to withhold its consent to a sub-license if the reverse was sought.

This being a term of the original license, the licensor is likely to be in a stronger position to resist the reverse being sought in the event of a sub-license.

3.6 What do “Best Endeavours” and “Reasonable Endeavours” Mean?

Introduction

“Best endeavours” and “reasonable endeavours”, are phrases used in intellectual property licenses from time to time. So are the not dissimilar “best efforts” and “reasonable efforts” phrases. There are many circumstances in an IP license where a “best” or “reasonable”, “endeavours” or “efforts” provision might be employed, such as obligations upon a licensee to:

1. commercialise intellectual property
2. take intellectual property to a market ready state of development, and
3. maximise sales of products.

What do “best endeavours” and “reasonable endeavours” actually mean? What is their legal effect? What is the extent of the obligations that they impose? What is the difference between the two standards of the obligation? How useful are these phrases?

The terms are not meaningless

The vagueness of the terms might suggest that they are meaningless, nothing more than “comfort” provisions, inadequate to impose legally enforceable obligations, and inadequate to create legal liabilities if not complied with.

The terms do appear vague. But they do have a legally enforceable meaning.

Best Endeavours

At one time the courts placed a heavy burden when there was an obligation upon a party to use its best endeavours. The extent of the obligation was considered as going so far as to “leave no stone unturned.” “Best endeavours means what it says - it does not mean second best endeavours” a court once remarked.

Over the years the standard has been lowered. The obligation to use best endeavours is now measured by a test of reasonableness, requiring “all that a reasonable person could do in the circumstances,” or requiring all that “could reasonably be expected... having regard to the circumstances”.

No longer is it necessary to “leave no stone unturned”. Rather, the test of reasonableness requires that all considerations be taken into account in judging whether non-compliance is a breach

leading to legal liabilities. For example, commercial and financial considerations may be taken into account and weighed up so as to relieve a person from the obligation completely.

Reasonable endeavours

Reasonable endeavours has been held to require “appreciably less than best endeavours”, but at least a minimal effort. It is therefore less onerous than best endeavours requiring all that “could reasonably be expected... having regard to the circumstances”.

Consistently, the courts have remarked that the reasonable endeavours obligation is of a lower standard, and less onerous than the higher best endeavours obligation.

The courts have also remarked that a reasonable endeavours obligation is subject to the same commercial and financial considerations that might operate to relieve a person from the obligation.

Legally valid, but useful?

The best endeavours and reasonable endeavours obligations are therefore quite legally valid.

But, both being subject to:

1. considerations of reasonableness; and
- 2.
3. commercial and financial considerations

which might operate to relieve a person from the obligation to comply, it might fairly be asked whether the phrases are useful.

The vagueness and uncertainty of whether there is or will be legal accountability creates uncertainty over the use of either phrase.

This means that a licensor that intends to benefit from a licensee's best endeavours or reasonable endeavours obligation cannot confidently assess whether it has any recourse if it has the view that the licensee has not performed adequately. Will it be entitled to damages? If so, to what extent? Would any damages adequately compensate the licensor for the licensee's breach?

Nor can the licensee assess its obligation to perform its obligation, or its legal exposure if it doesn't.

It also means that there will be uncertainty whether a licensor can terminate a license for what it regards as a breach of a best endeavours obligation.

For example, a license may contain an obligation upon a licensee to use its best endeavours to maximise the sales of a product. This is critical to a licensor as the licensor's royalties are dependent on sales. A licensee's sales of the product may be modest. The licensee may have inadequately marketed, or may not be making adequate efforts in specific markets. The licensor may wish to terminate the license for inadequate performance. Can the licensor do so?

The licensor will face a number of challenges: what standard of performance is required by “best endeavours”; what commercial or financial considerations impact? What quantity of sales does “maximise sales” actually require?

A licensor may attempt to terminate for breach of the best endeavours obligation. The licensee may commence proceedings that the purported termination is invalid. Those proceedings may take years to resolve. During that time the licensor is not able to license another licensee. In these circumstances, a licensor is not well served by a best endeavours obligation.

The licensor would have been better served by obligations requiring specifically stated minimum quantities of products to have been sold in specific markets or regions, with specific provisions dealing with the consequences of failing to achieve those minimum sales.

Conclusion

So how useful is a best endeavours or reasonable endeavours obligation?

While they may be useful when expressing a non-binding statement of intention, they are not adequate to create obligations that are intended to have clear legal consequences such as damages, or rights of termination.

Where that is sought, it is prudent to more precisely frame the obligations that are intended to give rise to damages or rights of termination.

3.7 Securing Diligence obligations in early stage licensing

Every licensor seeks to include diligence obligations in the license terms.

Diligence obligations are obligations upon a licensee that the licensee must be diligent in commercialising the licensed intellectual property.

Diligence obligations can take many forms:

1. Identifying milestones along the commercialisation pathway, and requiring them to be achieved or reached by the licensee by specific dates or timeframes, such as milestones dealing with:
 - o completing R&D or product development
 - o clinical and regulatory achievement
 - o producing a prototype
 - o manufacturing a satisfactory pilot plant and production plant
 - o granting a sub-license in a key market
2. Requiring minimum expenditure on
 - o (a) R&D, or
 - o (b) marketing

3. Requiring minimum sales to be made, generally, or in particular markets.

These are just a few examples. Licensors and licensees can be quite inventive in formulating diligence obligations when negotiating their license.

A licensee's failure to comply with those obligations might indicate technical obstacles. But they might also be the result of a licensee's less than diligent efforts to commercialise the licensed intellectual property.

A licensee may have funding for only its top three ranking projects, and the licensed technology may rank fourth. A licensee may have developed, or licensed in, competitive technology which is more profitable. A licensee may intentionally not commercialise, having sought the license for no other reason than to make sure that the technology was "put on the shelf".

In each case, the result of an underperforming or non-performing licensee is that the licensor receives no financial return, or inadequate financial return.

Where the licensor is a research organisation its mission of its research outcomes benefitting the community is not achieved.

Where the licensor is a start-up company, its investors may not get a return, or may get an inadequate return.

Diligence obligations are therefore critical. Failing to comply with diligence obligations, ultimately, must lead to the termination of the license so that the licensor can license an alternative licensee.

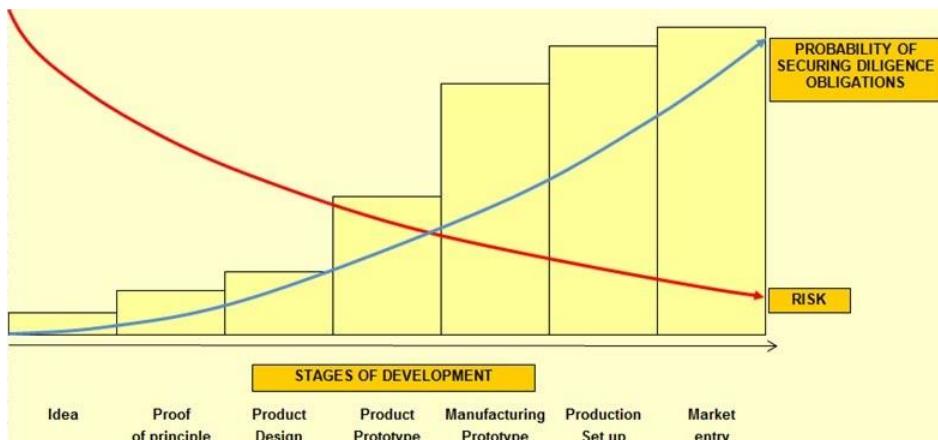
However, the earlier in the stage of development a technology is, the harder it is to negotiate diligence obligations.

The earlier the stage of development of a technology, the higher the risk for a licensee, and the greater the speculative nature of the licensee's investment into the licensed technology. Correspondingly, the greater the licensee is resistant to diligence obligations, or just simply refuses to entertain any diligence obligations.

The later the stage of development of a technology, the lower the risk for a licensee, and the lower the speculative nature of the licensee's investment, if speculative at all. In fact, the risk is greatest to a licensor, which having a market ready or near market ready technology, has the greatest to lose in the case of an under-performing or non-performing licensee.

But however early the stage of development of the technology, and however resistant a licensee might naturally be to diligence obligations, some type of diligence obligations should be able to be negotiated.

Research organisations not uncommonly need to license their research outcomes at an early stage. Start-up companies may need to partner and license at an early to intermediate stage. SMEs may need to license to help underwrite the risks of development.



They may need a licensee to fund national phase patent expenses, and so will need to secure a license well before national phase commences. They may not have the financial capacity to take the technology beyond the research phase or early development phase, and into the trial, prototyping, and market ready phases. Or, they may not have the specialist skills or the resources to take their research outcomes into the development, trial, prototyping and market ready phases.

Even a technology at the earliest stage of development should be able to be licensed with some diligence obligations.

A licensee that seeks to be granted a license, even of the earliest stage technology, must intend to do something with it in the short to intermediate term. Whatever that may be should be able to be formulated into milestones for that immediate to intermediate term.

Diligence obligations can be the hardest part of a license to negotiate, and the earlier the stage of development of the technology, the harder that task is. But diligence obligations are also critical, and the most important obligations that a licensor seeks to secure from a licensee.

4. NEGOTIATION

4.1 Negotiating IP Ownership

Introduction

Who will own the IP arising from:

1. collaborations and joint ventures
2. sponsored research
3. contract research
4. other contracting relationships

can be a controversial point in a negotiation.

It can be so controversial that sometimes parties intimate that they will walk away from the deal unless the ownership of IP is resolved in their favour. Sometimes it can be so controversial that they do walk away.

Perception that research monies are purchase monies

The controversy sometimes arises because of the perception that research funds paid under a collaboration agreement or a sponsored research agreement are the purchase price for the IP that arises from the research. If this is the perception, a party's insistence on ownership of the IP is understandable.

But of course research monies are not the purchase monies for IP – they are the monies that fund the carrying out of research. Normally, they only partially fund the carrying out of that research, which is why to classify research funds as purchase monies is inaccurate.

Perception that ownership is needed to commercialise and that a license is inadequate

It can also arise because of the perception that IP needs to be owned to be commercialised, and that a license is inadequate to do so.

Pharmaceutical companies, amongst the largest companies in the world, will invariably license technology in, and on the comfort and security of that license, will spend up to half a billion dollars to take a drug candidate through its clinical, regulatory and market approval stages. These most sophisticated technology multinationals always being satisfied with a license and not insisting on

ownership demonstrates that the perception that ownership of IP is required and that a license is inadequate, is a flawed perception.

The wrong negotiation approach #1 – to negotiate

The most common approach when negotiating this issue is to do just that – negotiate.

The first problem with that approach is that it is a negotiation that you either win – you will own the IP, or you will lose – the other party will own the IP. There is no middle ground. Whoever the loser is they will feel harshly treated, and that is not how you want your collaboration partner or research partner to feel. You can hardly get the best out of them if they feel harshly done by. This feeling of being harshly done by can lead to the reluctant performance of contractual obligations, or to the under-performance of obligations. The “winner” on the IP ownership issue might therefore turn out to be the “loser” in the long run.

The second problem with that approach is that the need for research monies sometimes results in the ownership of IP being conceded – a concession that again may make a party feel that it is being harshly done by, with the same result – reluctant performance or under-performance.

The third problem with that approach is that it stresses the relationship between the parties – a relationship that both parties really do not want to stress, but instead want to nurture and develop.

The wrong negotiation approach #2 – joint ownership

To avoid the issue, joint ownership between the parties might be considered. On the surface it appears to treat the parties equally and fairly.

But in fact, joint ownership laws around the world treat the parties unequally. One of the parties may be disadvantaged, or both parties may be disadvantaged.

For example:

1. there are two joint owners
2. one joint owner does not have the capability to manufacture and market products (it may be a university, research institute, start-up company or small SME)
3. the other joint owner does have capability to manufacture and sell products (it may be a large SME or a multi-national corporation).
- 4.

The law (in Australia, New Zealand, Singapore, Hong Kong, Malaysia, and almost all other countries) allows each joint owner to exploit the IP that it jointly owns, with no need for a license, and without any royalty or other financial obligation to the other joint owner. The joint owner without commercialisation capability gets none of the benefits of ownership, and the owner with commercialisation capability effectively gets all the benefits of ownership.

Another example

1. there are two joint owners
2. one of them wants to appoint a licensee, or to engage a manufacturer (which is a licensee) or a distributor (which is also a licensee).

The law (in Australia, New Zealand, Singapore, Hong Kong, Malaysia, and almost all other countries, except USA and Canada) is that a joint owner cannot grant a license without the other joint owner's consent. Consent can be given, or refused, or given subject to any conditions, including unpredictable or unreasonable conditions. The law on joint ownership does not require consent not to be unreasonably withheld.

The [Joint Ownership of Patents Does Not Result in Joint Benefits](#). Joint ownership will often give rise to more problems, instead of providing a solution.

The right negotiation approach – address the perception

Insistence on ownership usually arises because of the incorrect perception that research monies are the purchase price of the IP that arises from the research, or the flawed perception that ownership is required for commercialisation and that a license is inadequate.

When dealing with the ownership of IP, the best approach is therefore to address these perceptions.

The timing and manner of how this is done is critical.

If the perception problem is addressed after the "formal" negotiation starts, that is too late. All efforts to address the perception will be perceived to be part of the negotiation.

The time to address the perception is before the negotiation starts.

You seek to influence the other party's perception – you don't seek to negotiate the issue. The "sweetheart phase" when the parties are considering and evaluating each other, the technology, and the opportunity, is the optimal time to influence these perceptions.

This is not done around a negotiation table. It is done instead around a dinner table, or otherwise in casual conversation.

Some examples of how you might consider influencing the other party:

1. Casually describe some of the other licenses that you have granted. They are already public knowledge, so you can talk about them without needing to disclose any confidential information. Identify the multinational licensee by name. Mention (perhaps in broad terms) the extent of the financial investment the licensee has made or will make in further R&D, travelling any regulatory path, investing in marketing, etc. Describe the wonderful partnership that the license implements. Don't just describe one license. Describe several.
2. Describe some of the regrettable experiences you have had with joint ownership. Describe an occasion when a joint owner declined consent to a license to a manufacturer or distributor. Or, how a joint owner sought to impose conditions on the granting of consent,

including insistence on the sharing of financial benefits in a manner that was disproportionate and inequitable.

The prospective licensee that you will later be negotiating with will listen and absorb these experiences that you share. This will influence the prospective licensee's perceptions, and in turn, influence the negotiation, and in turn, the negotiation's outcome.

When this is done well, controversies on the ownership of IP can be avoided altogether – the issue simply does not arise – what you propose about ownership (and accompanying rights) is accepted. This happens on a minority of occasions. On the majority of occasions the issue won't be avoided, but you will start the negotiation of this issue with advantage, and a greater likelihood of prevailing.

4.2 Who Should Make the First Offer in a License Negotiation?

Scenario

We are negotiating the financial terms of a license. It may be the royalty rate, or the upfront amount, or milestone payments, or a combination of these.

Who should make the opening offer? Should it be the licensor, or the licensee? Or, should it be us, or the other party?

Best Practice

Most people respond by preferring the other party to make the first opening offer in a negotiation of financial terms. But, in fact best practice is that we should make the first opening offer – whether we are the licensor or the licensee.

This is because the first offer has an anchoring effect upon the negotiation. Whichever party makes the first opening offer, by doing so, will set an anchoring point, and set the negotiation range of the financial negotiation that follows.

It is not unlike the price of a car being painted on a car windscreens by the car salesyard. The price painted on the windscreens is the first opening offer, and it achieves that anchoring effect, which dictates the negotiation range in the price negotiation that follows.

Making the first anchoring offer also has a calibration effect. A licensee may have expected to pay a royalty of 4% to 6%. But when a licensor makes a first anchoring offer of say 9%, the licensee may have to recalibrate its expectations, and consider having to pay a royalty rate of at least 6% (its maximum), or an even higher royalty rate. The licensor has by its opening anchoring first offer achieved a tilt in its favour in the negotiation that follows.

The same is true in reverse. A licensor may have expected a royalty rate of 10% to 12%. But a licensee that makes a first anchoring offer of 5% forces a licensor to have to recalibrate its

expectations, and consider having to accept a royalty rate of less than 10%. This time, the licensee has by its opening anchoring first offer achieved a tilt in its favour.

These examples demonstrate that the anchoring effect can be achieved by the licensor or by the licensee, whichever of them makes the first opening offer.

As a general rule, this tilting of the negotiation in favour of the party that makes the first opening anchoring offer results in the party that made the first offer getting a “larger slice of the pie” in the negotiation.

Highest (or lowest) credible offer

But this does not mean that the party making the opening offer can make an outrageous offer. If the anchoring effect is to be achieved, and if the recalibration effect is to be achieved, the first opening offer must be a credible one. If the other party asks for justification for the amount offered, the party making the opening offer must be able to provide a commercially acceptable response. If a commercially acceptable response cannot be given, the first opening offer will not have the anchoring and recalibration effect that was intended.

Instead, the first opening offer will be dismissed, and the party that made it will now have to deal with a negative perception of its credibility, and not just in relation to the failed impact of the first offer, but in relation to other parts of the negotiation as well.

To achieve the anchoring and recalibration effect described, and to avoid any adverse impact on credibility, the first opening offer must be credible.

For a licensor this means making the highest first offer that it can commercially justify, confident that its credibility will be preserved because it has its justification prepared.

For a licensee this means making the lowest first offer that it can commercially justify, again confident that its credibility will be preserved because it has its justification prepared.

What if the other party makes the first offer?

If the other party makes the first offer, does that mean that we have lost the opportunity to make the anchoring first offer that we had intended?

Not necessarily. Best practice is not to respond to the first offer, not to seek justification for it, and not to discuss it to any extent, but instead to make a counter offer, and to do so immediately. The counter offer made would be the opening offer that had been intended.

By making the counter offer immediately, and not engaging in any discussion of the first offer, the intention is to have the counter offer achieve the anchoring effect and recalibration effect that was sought.

First exception – when the other party does not know the value

As with all general rules, there are exceptions.

The first exception is when one party confidently perceives that the other party does not know the value of what is being negotiated. By allowing the other party to make the first offer, it is hoped that the other party will over-value and offer too much.

Market places where haggling is the norm illustrate this exception. Often, sellers will invite the customer to make the first offer, knowing that the customer is unlikely to know the real value of the item, and is likely to make an over-valued first offer. The negotiation proceeds from that over-valued first offer. The seller, by inviting the buyer to make the first offer, and the result being an over-valued first offer, has tilted the outcome of the negotiation in the seller's favour. But if the buyer had made an under-valued first offer, the seller would immediately dismiss it and make a countering anchoring first offer, seeking to recalibrate the buyer's expectations.

In any marketplace where prices are not displayed and haggling is the norm, these strategies will often be employed by sellers.

Second exception – a licensor perceived to have a weak bargaining position

The second exception is the strategy very often used by pharmaceutical companies and other multinational companies.

When there is a perception that the licensor has a weak bargaining position, they may invite the licensor to make the first offer, in anticipation that the licensor will under-value its IP.

This may occur when the licensor:

1. seeks to license out at an early stage in the development of the technology, or
2. is a university or research organisation, and is assessed by a licensee to have limited other options, or even no other options, or
3. has been searching for a long time for a licensee, and is perceived to be anxious not to lose the present opportunity it has.

The licensor will be perceived to be likely to not want to ask for too much, in case doing so makes the potential licensee uninterested. A licensor might, at such an early stage, respond by stating a royalty, or a royalty range, which is at the low end of the commercial spectrum for the technology concerned. The licensee of course will respond by replying that the licensor's expectation is too high (whatever the licensor stated), and the negotiation proceeds from the under-valued point offered by the licensor. The licensee has in this way tilted the outcome of the negotiation in its favour.

This strategy, and how to deal with it, was described in an earlier edition of IP Bits, which is [here](#).

Conclusion

Negotiation is often thought of as involving little more than “turning up and saying what you want”. But of course, there is a science to negotiation, and there are strategies to employ, as well as to watch out for.

4.3 Information is the Currency in a Negotiation

Negotiations Undertaken Without Information

So much effort is spent making proposals in a negotiation. Those proposals meet the needs of the person making the proposal of course, but so often proposals are made without regard to whether they meet the needs of the other party. In fact the needs of the other party may not even have been considered in the formulation of the proposal.

When a negotiation is undertaken in this way, a proposal made without regard to the other party's needs is rather aimless, and is likely to be rejected. Whether it does meet the other party's needs, and therefore whether it will be accepted, is entirely subject to chance.

So many negotiations are a series of aimless proposals that accidentally are on target and are accepted, but more often are off target and rejected. These are negotiations undertaken without information, or with little information to assist the formulation of proposals.

Negotiations Undertaken With Information

In contrast, proposals formulated having gathered and assessed relevant information are proposals that will meet the needs of the party making the proposal, as well as being more likely to meet the other party's needs, and therefore more likely to be accepted by the other party.

Which is the more efficient negotiation: the one without information with aimless proposals that probably will not be accepted, or the negotiation with information to help formulate proposals that meet our own needs, and have the prospect of meeting the other party's needs as well?

Which negotiation is more likely to build the relationship between the parties? Which negotiation is more likely to put the relationship under stress? Which negotiation is more likely to have impasse?

Information is the currency of a negotiation

The party with the most currency is the richer party.

So it is with information in a negotiation. The party with the most information in a negotiation is the richer party, which will secure the best outcomes.

The party without information negotiates aimlessly, and cannot as a result get the best outcome. In contrast, the party with information negotiates meaningfully and relevantly, equipped to make proposals of its own choosing, and which therefore meet its needs, and which meet the other party's needs as well.

The challenge in a negotiation is to get information. The more serious or larger the value of the transaction, the greater the time and effort that should be invested in gathering information. But even smaller transactions benefit from some degree of information gathering.

Good negotiators prepare and gather information

Negotiation preparations are critical. For larger transactions or high value transactions, the time spent in the preparation phase can be as much as 20% to 30% of the total time that it takes to negotiate the transaction.

Negotiation preparation involves much more than formulating best outcomes. That can sometimes be wishful and fanciful. In the preparation phase information is gathered and assessed about the other party, about the other party's representatives with whom we will be negotiating, the other party's decision makers, and their decision making processes. Information is assessed about our own needs and goals, as well as alternative ways or pathways to achieving those needs and goals. Importantly, the transaction needs to be benchmarked, its financial terms, and other terms as well.

At first meetings, good negotiators ask questions and seek to gather more information from the other party

The “automatic gear” approach to first meetings is to start the negotiation. But at first meetings, a good negotiator will not necessarily start negotiating, but instead will ask questions of the other party, continuing to gather information.

Are there any gaps in the information gathered in the preparation phase that need to be filled? Is there any information gathered in preparations that needs to be validated or clarified?

First meetings should not necessarily be occasions where we “dive into the negotiation”.

In fact, we should not start the negotiation at all until a time of our choosing, when we feel that our preparations are as complete as they can be.

First meetings are therefore opportunities to gather more information.

At first meetings, good negotiators communicate information rather than make proposals

First meetings as well are occasions to communicate information to the other party.

We do not want the other party to make aimless proposals. Instead, we prefer that the other party makes meaningful and relevant proposals. First meetings are therefore an opportunity to communicate information to the other party about our needs and goals, to better equip the other

party to make more meaningful and relevant proposals to us, and as well to be better equipped to evaluate the proposals that we make to it.

Good negotiators do not repeat or justify their rejected proposals, but seek criticism about their proposals

When our proposals are rejected by the other party our “automatic gear” inclination is to justify and repeat the proposal, and to seek to persuade the other party that our proposal is fair.

Often, this only results in our proposals continuing to be rejected.

A good negotiator does not repeat or justify rejected proposals. Rather, the good negotiator uses a rejected proposal as an opportunity to invite criticism and evaluation of the proposal made, in an effort to gather more information about the other party and its needs and goals.

In this way the good negotiator is better equipped to make another proposal, of its own choosing, so it is a proposal that meets its own needs, but as well is a proposal that is more likely to meet the other party’s needs too.

Good negotiators do not reject the other party’s proposals, but communicate information

The “automatic gear” response to a proposal that does not meet our needs is to reject the proposal.

A good negotiator will not reject an unsuitable proposal, having as that does, negativity.

Instead the good negotiator will use the opportunity to communicate information to the other party about its needs and goals to make the other party better equipped to formulate another proposal that will be more likely to suit the goals and needs to be met.

Is it worth the trouble?

The more significant or the greater the value of the transaction, the greater the importance that we gather information for the negotiation, and the greater benefits we will have from having done so.

4.4 Loaded Questions to Watch Out for (or to Ask)

Loaded Question #1:

Licensee to Licensor: “Can you tell me what royalties you are expecting?”

At some stage in the license negotiation financial terms have to be addressed.

Sometimes this question is asked at a very early stage in discussions, before the negotiation even commences, or just as it starts. So early in fact that a licensor might be taken by surprise by the question being asked at that early time.

Why does a licensee ask that question so early in a license negotiation?

It may be because the licensee wants to know the “ballpark” of financial terms before commencing an expensive and time consuming due diligence.

Or, it may be to secure an advantage.

A licensee may perceive the licensor to have a weak bargaining position. This may be because, for example:

1. the licensor seeks to license out at an early stage in the development of the technology
2. the licensor may be a university or research organisation, and may be assessed by a licensee to have limited other options, or even no other options
3. the licensor may have been searching for a long time for a licensee, and is perceived to be anxious not to lose opportunity it has with the licensee that is asking the question.

What does a licensee seek to achieve by asking that question so early in a license negotiation?

Where the technology is early stage, or where the licensor is a university or research organisation, or otherwise perceived to be anxious, the earlier the question of the licensor's royalty expectations is asked, the weaker the licensor's bargaining position is perceived to be.

A licensor does not want to ask for too much, in case doing so deters the potential licensee. A licensor might, at such an early stage, respond by stating a royalty, or a royalty range, which is at the low end of the commercial spectrum for the technology concerned. The licensee of course will respond by replying that the licensor's expectation is too high (whatever the licensor stated), but that the licensee is sure something can be negotiated.

The result is that the licensee has achieved its objective of the licensor's opening offer for a royalty rate being low, and being able to be negotiated down further.

How should a licensor deal with such a question when it arrives at such an early stage?

The licensor should sidestep the question. There is no need to conceal the lack of readiness to negotiate on that question, and every reason to be candid. That is especially so where a licensor must still undertake steps to be fully prepared for the financial negotiation.

“We haven’t quite finished our royalty analysis, so I can’t meaningfully answer that today.”

The object is to defer the negotiation to a time of the licensor’s own choosing, when ready to negotiate, and not to be drawn prematurely into a negotiation of financial terms.

Indeed, even if the licensor was ready to negotiate financial terms, a licensor doing so when the licensee perceives the licensor to have a weak bargaining position will disadvantage the licensor. It would be better for the licensor to defer the license negotiation until a time when the licensor has negated any such perception that the licensee may have.

Loaded Question #2:

Licensor to Licensee: “Can you tell me what your sales forecasts are”

A licensor that asks this question may be seeking to judge how committed, or how confident the licensee is in its commercialisation of the licensed product.

It may also be to assist the licensor formulate minimum diligence obligations that the licensee must perform or achieve, such as minimum sales to be made, or minimum royalties to be paid, with the potential result that the license is terminated if these are not performed or achieved.

A licensee may try to avoid this question, not wanting to be committed to minimum sales. But that will not always be possible.

A licensee will not want to respond too conservatively. The risk is that if it does, a competing licensee might be preferred by the licensor.

The licensee will not wish to respond too optimistically either. This could have the result that the licensor might dismiss the licensee as being fanciful, and prefer another licensee.

An optimistic response might also be the basis for the licensor formulating minimum sales obligations, or minimum royalty obligations, based on the licensee’s optimistic response. If the licensee’s response is too optimistic, it will afterwards be difficult for the licensee to argue that it is not able to achieve the forecasts it had itself estimated.

The licensee’s dilemma is that it does not want to forecast too high, nor too low, each carrying its own disadvantages. How might a licensee consider responding?

A response has to be considered. Again, the question may be asked at a time when the licensee has not completed an assessment or analysis of the market to enable reliable forecasts to be made. One strategy therefore is to defer responding until a considered assessment has been made.

Another strategy is to focus on a different type of diligence obligation, rather than the risky minimum sales, or the equally risky minimum royalty obligations.

A licensee's assessment of the market may not be able to result in a reliable forecast. A licensee therefore may assume the risk of the termination of the license, if it cannot achieve the minimum sales.

But what the licensee can assess with confidence is the amount of the licensee's investment in the technology and its commercialisation. A licensee can reasonably forecast how much it will spend on the technology's future development, and how much it will spend on its marketing campaigns. The licensee can consider binding itself to this predictable low-risk diligence obligation, instead of the higher risk minimum sales or minimum royalty obligation.

"The market and competitors are unpredictable for firm sales estimates. But what we can commit to is to invest a minimum amount in R&D, and marketing campaigns during the first 2 or 3 years."

5. OPTIONS TO NEGOTIATE & RIGHTS OF FIRST REFUSAL

5.1 Rights of First Refusal and Options to Negotiate: Are They Legal?

An expanded version of this issue of IP Bits was published as [The Economic and Bargaining Implications of Rights of First Refusal and Options to Negotiate](#) *The Licensing Journal, Volume 35, Number 5, pages 4–10, May 2015*

The hard questions about rights of first refusal and options to negotiate

Rights of first refusal and options to negotiate a license are commonly employed tech transfer tools. The hard questions about them are:

1. What do they actually mean?
2. Are they legally binding?
3. Is a party in breach if it declines to negotiate?
4. Is a party in breach if it participates in a negotiation but does not agree with the other party's proposals?
5. Is a party in breach if it breaks off negotiations?
6. If a party is in breach, is it liable to pay damages to the other?
7. If it is liable to pay damages, how are damages assessed?

What do these rights mean?

A right of first refusal to be granted a license and an option to negotiate a license can both be described as "first in line" rights. That is, when these rights are granted by an owner of intellectual property to a prospective licensee, the parties:

1. wish to defer the negotiation of a license to a later time
2. agree that the prospective licensee stands in a preferential position to be granted a license, before anyone else.

A right of first refusal to be granted a license and an option to negotiate a license are essentially the same.

They are commonly employed in a research agreement. A company may financially support research at a university, and seeks these first in line rights. It is too early to devote significant time and resources and cost to negotiating the license, and to do so might delay the research. Instead,

the parties prefer to proceed with the research, and defer the negotiation of a license to a later date, if a license should be sought at all.

They are also commonly employed in a Material Transfer Agreement. A company may provide its biological material to a university for research purposes, and seeks the opportunity to negotiate a license with the university for any of the university's research outcomes that relate to the company's material.

Obligation to negotiate or obligation to reach agreement?

Sometimes it is thought that an obligation to negotiate also creates an obligation to reach agreement. But that is not so.

The obligation is an obligation to participate in the negotiation process to explore where common ground and consensus can be found. But it is not an obligation upon either party to actually agree with the other party's proposals.

Status of these first in line rights: UK (and countries with a British legal System)

In the UK, and countries whose legal systems are based on the UK's legal system (which includes Australia, New Zealand, Singapore, Malaysia, Hong Kong and India), the law has always regarded an agreement to negotiate as an agreement to agree, which is void and unenforceable.

Suppose Person A states to Person B: "I agree to sell you my car for a price that we will negotiate in good faith next week"

If Person A reneges and the following week refuses to sell the car, has Person A breached obligations to Person B?

In the UK the law has always taken the approach that a binding contract, to be binding, must not leave anything essential to be agreed upon later.

If a contract left something essential unaddressed, to be agreed upon later, such as the price of the car in this example, then it must follow that there was no agreement yet.

In the UK, this is described as an agreement to agree, and in the UK, an agreement to agree is void.

Amongst the reasons that this is void is the difficulty of assessing or quantifying damages for breach, if it was not void. How can a court assess the probability of whether two parties negotiating would have reached common ground and consensus? Were they so close that the probability was high? Or were they so far apart that the probability was low? Should the assessment of damages assume that the contract would have lasted a long time, or a short time?

United States and Europe

In the United States and Europe however, quite a different view is taken: Here, if two parties submit to an obligation to negotiate in good faith, the law can judge whether the parties have conducted themselves in a manner that is consistent with discharging that obligation.

In the United States the obligation to negotiate imports the obligation to inform the other party about competing negotiations to enable it to at least make a matching proposal. As well, there is the obligation upon the parties to continue their negotiation until they reach consensus, or have definitely reached an impasse.

If the obligation to negotiate is breached in the United States, courts can award reliance damages, or expectation damages.

Reliance damages compensates a party for the expenses it incurred in reliance upon the obligation to negotiate being discharged. It will compensate for legal expenses and travel expenses for example. It will also compensate for any opportunity cost associated with missed opportunities. But it will not compensate for the loss of profit.

Expectation damages on the other hand compensate for lost profits. Courts in the United States infrequently award expectation damages, given the uncertainties of assessing the probability of whether the negotiation would have resulted in a concluded agreement. But where a court is persuaded that this was probable, expectation damages can be substantial.

Countries whose laws are evolving: Australia

In some countries, the law is evolving. Australia for example consistently followed the UK approach. In more recent decades, its law has been evolving to increasingly follow the US approach.

In other countries, such as Singapore and Hong Kong, recent court decisions demonstrate consideration to similarly move away from the UK approach towards the US approach.

Legal risk

If an obligation to negotiate a license, arising either under a right of first refusal, or an option to negotiate, is subject to the laws of a country where it is legally enforceable, important legal risks arise if the obligation to negotiate in good faith is not discharged. There is the risk of reliance damages described above, or expectation damages described above.

Commercial risk

Where one of the parties is a risk averse university or research organisation, it can be particularly sensitive to these legal risks. In turn, this makes the risk averse university or research organisation able to be intimidated by the suggestion that it is not discharging its obligation to negotiate in good faith, and intimidated by the inferred threat of a legal dispute. Sometimes that intimidation is subtle.

Sometimes it does not exist at all, but is perceived to be there. And sometimes the intimidation can be direct.

In each case, the university or research organisation might as a result compromise on a commercial issue more than it might have wished to. The commercial risk to a university or research organisation is therefore that it might settle on less than optimal license terms.

Managing these risks

Mechanisms can be employed to lessen or minimise these risks. None wholly eliminate these risks, and some of have their own inherent risks.

1. Framing the obligation to negotiate within parameters:

For example, the parties may have a term sheet that records the parameters of their discussions at a particular point of time, and commit to each other to negotiate within these parameters. This exposes each party to the risk of an assertion that it is not negotiating in good faith should it need to negotiate outside these parameters, or to introduce new parameters. As sometimes happens in a negotiation, as it progresses, discussions or intervening events result in a genuine need to seek to negotiate outside previously agreed parameters.

It might be argued that a party that needs to negotiate outside previously agreed parameters acts in contravention of the obligation to negotiate in good faith. But it might also be argued that the party that refuses to recognise the other's need to go outside previously agreed parameters is the one that acts in contravention of the obligation to negotiate in good faith.

2. Recording a royalty range.

The parties might record that they agree that when they negotiate the financial terms of a license the royalty range that they will discuss will be between two agreed rates, for example, between 5% and 8%.

This exposes the licensor to the risk of being unable to secure any more than the lowest rate in that range.

3. Placing a time limit on negotiations.

Sometimes the parties provide for a time limit, stating that if a negotiation has not resulted in a concluded agreement within an agreed period, such as three months, then the parties have no further obligation to negotiate. However, this does not address the question whether one of the parties failed to negotiate in good faith during the period of three months.

Option with license attached

An alternative is not to defer the negotiation at all, but to negotiate all the terms of a license at the outset. Here, at the same time as negotiating a research agreement, the parties also fully negotiate the terms of the license, including all financial terms, with nothing to be negotiated later.

Typically, the research agreement then contains a provision that confers on the company the choice to be granted a license on the agreed terms. If the company makes that choice, or exercises that option, the parties become obliged to execute a license on those agreed terms, without deviation.

Pragmatically, this alternative is only available to the parties where:

1. the amount of research monies being invested into research justifies the time and expense of fully negotiating a license at the outset, and
2. there is sufficient certainty about the research outcomes anticipated to be able to confidently assess the value of those outcomes and so be able to negotiate the financial terms of the license.

Concluding comments

As with all commercial matters, there are always risks to each party, and these risks cannot always be eliminated.

Obligations to negotiate arising from rights of first refusal and options to negotiate are no different to any other type of commercial risk that needs to be assessed.

The obligation to negotiate arising from rights of first refusal and options to negotiate serves an important facilitating role.

Without them, there would be an impediment to material transfer agreements and research agreements, and in turn, there would be an impediment to research.

In each case therefore, the risks of the occasion need to be assessed against the potential benefits of the occasion.

5.2 Controversies about rights to confer on a research sponsor

Introduction

A research sponsor is a company that has agreed to fund research at a university or research institute.

To persuade the company to financially support the research, the company not unreasonably wants something in return.

What can that something in return be? There is no perfect answer to this question that will always meet all the needs and expectations of both the university and the company. There are a smorgasbord of possible solutions.

Mission and expectations

Whatever solution is selected, it will need to fit in with the mission of the university or research institute, and the expectations that rest upon it.

Amongst a university's missions is to ensure that the products of its innovations contribute to social improvement. And amongst the expectations upon a university, particularly by Government, is that the university's innovations contribute to the nation's economic improvement. This mission and expectation are achieved by the university's commercialisation.

Against this background, what rights should a university confer on a research sponsor that is funding research to be undertaken at the university?

Assign ownership of IP to the company?

The company research sponsor might expect to own the IP that arises from the research it is funding, and expect its ownership to be confirmed in the terms of the Research Agreement. If so, its perspective is that the research funds it provides are the "purchase price" for the IP.

When a company seeking research to be undertaken engages another company to do that research, under the terms of a commercial contract, that perspective is correct. The company is indeed paying a "purchase price" and not unreasonably expects to own the IP arising from the contract research. Such a commercial contract research company will propose its "price" on a commercial basis, which will include the direct costs of undertaking the research, indirect capital costs, as well as a commercial profit margin.

A university does not cost its research projects in that way. Its costing will take into account all direct costs, a modest amount of indirect capital costs (if any at all), and will never take a profit margin into account, which does not sit comfortably in the university environment. The costing or

“price” being quite different when a university is engaged, as would be expected, where the ownership of IP will lie will also be quite different.

But the more obstacle to a university agreeing to assign the IP to the research sponsor is that such an assignment does not sit comfortably with its mission of contributing to social improvement, and the expectation that the university contribute to economic improvement.

A university that licenses IP will invariably negotiate diligence obligations upon the licensee. These are obligations that relate to the licensee efficiently travelling the pathway to market, and successfully introducing the product of the IP to the market. In this way the university's mission and the expectations upon it are achieved. The licensee's failure to meet those diligence obligations will usually (but not draconically) result in the termination of the license, so that the university can license an alternative licensee that can take the products of the IP to the market.

Diligence obligations like this cannot be included in an assignment, since an assignment is a permanent transfer of ownership of the IP. Ownership cannot be “terminated” in the same way that a license can.

Diligence obligations being critical to the university's achievement of its mission, and meeting the expectations upon the university, the inability to include them in an assignment of IP to a company research sponsor, makes it challenging for a university to agree that the company should own the IP that arises from undertaking the sponsored research.

Using the United States as a benchmark, it is unheard of for a company research sponsor to own the IP that arises from the research it sponsors. Instead, it will be conferred one of the rights set out below.

Grant an immediate non-exclusive license for internal use?

A possible right to confer on a company research sponsor in the Research Agreement is a non-exclusive license to use the IP arising from the research, in its own business, without the right to sub-license.

By doing so, the company research sponsor receives a license immediately to the full extent required for it to exploit the IP in its own business. That may be all that it would ever have sought anyway. An SME that is sponsoring research may well be satisfied with that, and experience is that it often will be.

In this model, the university retains ownership of the IP, and the right to grant a worldwide exclusive license to a commercial partner able to take the products of the IP to the world, which the SME might not have been able to do. The only exception to this worldwide “exclusive” license is the non-exclusive license to the company research sponsor, which only slightly, and perhaps insignificantly devalues the worldwide “exclusive” rights.

Joint ownership of IP?

The suggestion may be made that the IP arising from the sponsored research should be jointly owned, by the university and the company research sponsor.

It sounds an appealing suggestion: the parties jointly benefitting from the research outcomes by jointly owning those outcomes. But this assumes that the benefits of joint ownership are mutual and equal between the joint owners, when that is not the case.

Each joint owner can exploit a jointly owned patent without the consent of the other, and without any obligation to pay a royalty to the other. The company joint owner can therefore exploit, and in doing so realise economic benefits. But the university joint owner does not have the capacity to become a manufacturer and seller of products. Nor would it ever obtain the sanction to do so.

For the university to realise economic benefits, it will have to grant a license to a licensee. But, in most countries a joint owner cannot grant a license without the consent of the other joint owner, which it would be unlikely to give, resulting as it does in effectively consenting to a competitor. In the United States a joint owner can grant a license without the consent of the other joint owner, but the practical problem is that a licensee would more likely insist on a license granted by all the joint owners or if willing to accept a license from one joint owner only, it is at best a non-exclusive license, since the other joint owner can grant licenses as well. It would be a non-exclusive license with its value severely diminished.

As mutually beneficial as joint ownership sounds, it is in fact not mutually beneficial at all. This was more fully explored in a previous edition of IP Bits [Joint Ownership of Patents Does Not Result in Joint Benefits](#).

Right of first refusal or option to negotiate a license?

For most sponsored research projects, it would be time consuming and burdensome to negotiate a license at the same time as negotiating the research agreement. For many sponsored research projects, research outcomes being uncertain and speculative, the IP that arises may not justify a license being sought.

A right of first refusal or option to negotiate a license defers the question, allowing the research to commence straight away.

The company research sponsor is given a period of time within which to assess the IP arising from the project, and is conferred the right to choose to seek a license, or to decline seeking a license. If it decides that it wants a license, the parties proceed to negotiate the terms of the license. For the duration of the company's right of first refusal or option to negotiate a license, the university cannot license anyone else, in that way ensuring that the company's right to a license is secure.

By deferring the question of the company being granted a license, a right of first refusal or option to negotiate enables the relatively straight forward research agreement to be quickly finalised, allowing the research to proceed without delay. The time consuming task of negotiating a license may never occur if the company chooses not to have a license, and is deferred to a later time if the company chooses that it does.

Either way, proceeding with the research is not delayed.

Rights of first refusal and options to negotiate are legal, and enforceable, in most countries of the world. This was considered in a previous edition of IP Bits [Is a Right of First Refusal or Option to Negotiate Legal?](#)

Immediate exclusive license?

If the research funds that the company will commit are significant, a company might seek to have a license negotiated and finalised concurrently with the research agreement, with both being signed together. Or, the research agreement may be signed, with the fully negotiated license attached as a schedule, with an option to be granted a license, on the terms of the finalised license attached (which is quite different to an option to negotiate).

It would indeed have to be a significant amount of research funds being committed for both the company and the university to be willing to defer the commencement of the project for the 6-9 months that it may take to negotiate both agreements.

Concluding comments

There is no one single way forward which is the compelling model for all occasions. On each occasion, different drivers and motivations, as well as the amount of research funds being committed, will influence the parties on which way forward suits them best.

6. START-UP COMPANIES

6.1 Glossary of Terms Used by Venture Capitalists

An **Angel Investor** is an individual that invests into a Start-Up Company. Compare **Venture Capital Investor**.

An **Anti-Dilution** provision is a contractual provision under which Preference Shares are Converted into a larger number of Ordinary Shares, to “top-up” or compensate an investor when a Down Round occurs. See also Full Ratchet and Weighted Average Ratchet.

A **Burn Rate** is the rate at which a Start-Up Company spends money in excess of its revenue

Bootstrapped refers to a Start-Up Company being funded by its Founder's own resources.

Cap Table or **Capitalisation Table** is a table that contains a list of existing shareholders, and the investors in a Round of Investment, and shows for each the number of shares that will be held by each, and the corresponding percentage ownership of the company that will be held by each progressively, as each Tranche is paid to the Company.

Closing occurs when all the legal documentation between the Start-Up Company and the investors etc are signed, and the first Tranche of the Round is paid.

Consent Matters or **Reserved Matters** are matters the subject of a resolution by either the company's board of directors or general meeting, where the resolution cannot be passed without the consent of Preference Shareholders. These will be matters that are so significant that the Start-Up Company is contractually precluded from making a decision about them unless the Preference Shareholders agree to the proposed decision, such as whether or not to sell the company's business, or a major asset. They effectively confer a veto power upon the Preference Shareholders, in relation to those matters.

Conversion occurs when a Preference Share is converted into an Ordinary Share. This may occur on an Exit, such as an IPO or a Trade Sale, or immediately prior to Liquidation. See also Anti-Dilution.

A **Convertible Note** is an instrument that records the provision of capital to a company, which can be either repaid by the company, or instead converted into shares in the company, usually at the election of the investor providing the capital.

Cumulative Dividends are annual minimum Dividends which if unpaid in any year because the company had no profits or insufficient profits, will carry forward to the following years and accumulate, until payment is made.

Dividends are distributions or payments to a company's shareholders of the company's profits.

A **Due Diligence** is an investor's investigation and assessment of a Start-Up Company, to enable the investor to make an informed decision about whether or not to invest, and may cover such matters as the Company's intellectual property, the commercial opportunity, the company's financial history and other history, etc

A **Down Round** is a Round of Investment where the price per share is lower than in the previous Round.

A **Drag Along** right is a Preference Shareholder's right, when selling its shares in the Start-Up company, to require Ordinary Shareholders to also sell their shares at the same time, being "dragged along" in the Trade Sale. Compare Tag Along rights

ESOP is an acronym for **Employee Share Option Plan**, which is a plan under which share Options are issued to a Start-Up Company's staff and directors on favourable terms to incentivise them, and which sets out the conditions under which this occurs, including the Vesting conditions. See Option. Compare a Share Plan.

Exercise Price or **Strike Price** is the price for a share that is paid by an employee or director under an ESOP or Option. See Option.

An **Exit** is the means by which an Investor gets its investment back, as well as its return on investment. It can occur by an IPO, a Trade Sale, or a Redemption.

A **First Round** is a Start-Up Company's first Round of Investment from investors, excluding shares issued to Founders and other shareholders prior to the first formal investment. See also Series A.

A **Follow-On Investment** occurs when an investor that invested in a previous Round, also invests in a later Round, the latter being referred to as a Follow On Investment.

A **Founder** is the entrepreneur that forms a Start-Up Company.

A **Full Ratchet** is an Anti-Dilution provision where the rate of Conversion is calculated by reference to the lowest price for which shares are issued in the lowest Down Round. Compare Weighted Average Ratchet.

IPO is an acronym for **Initial Public Offering** and occurs when a Start-Up Company undertakes a public capital raising and lists on a stock exchange

A **Lead Investor** is the Venture Capital Investor that provides the largest investment in a Round, when there are a number of investors co-investing together in that Round.

Liquidation is the process of collecting the assets of a company, paying all its debts, and distributing its surplus assets (also called surplus capital) to the company's shareholders.

A **Liquidation Preference** is a right attaching to Preference Shares, where on Liquidation, a company's surplus assets or surplus capital is paid to the Preference Shareholders, to a pre-determined extent, before anything is paid to Ordinary Shareholders.

A **Milestone** is a date or an event (or combination of events) the occurrence or taking place of which trigger the payment to a Start-Up Company of a Tranche of investment. For example, each of the following may be individual Milestones, each triggering the payment of a Tranche.

Alternatively, a single Milestone may be the achievement of all of them:

1. The Board passing a resolution adopting the Company's Annual Plan
2. The Company hiring a person in the position of [title] having the following skills acceptable to the Board [list].
3. A patent being granted in [country].

An **Ordinary Share** is the most common type of share issued by a company. The holder of Ordinary Shares has the right to Dividends, on Liquidation the right to receive surplus capital in proportion to the number of Ordinary Shares held, to attend and speak at general meetings of the company, and to vote at general meetings, having on a Poll the number of votes equal to the number of Ordinary Shares held.

An **Option** is a contractual right to have shares issued to the holder of the Option, at a predetermined Exercise Price or Strike Price. It is used to incentivise staff. For example, a staff member may have 10,000 options, that is, the right to be issued 10,000 shares, at 50c per share, exercisable at any time during the Option Period. If the Start-Up Company is successful and the value of its shares increases to \$5 each, the employee will exercise the option at 50c per share, to receive a share valued at \$5, and obtaining a benefit of \$4.50 per share. It is a right not an obligation, so if the value of the shares fall to 10c, the employee has no obligation.

An **Option Period** is the period during which an Option can be exercised, usually expressed as a fixed number of years.

A **Poll**, at a general meeting of a company, is voting on a resolution by reference to the number of shares held, with each shareholder having one vote per share, instead of voting on a show of hands.

A **Pre-Emption Right** is a right conferred on the holders of Preference Shares, and is the right to take up a new issue of shares before other shareholders, and the right to purchase existing shares from other shareholders who offer them for sale, again, before other shareholders can purchase them.

Pre-Money Valuation or just simply **Pre-Money** is the amount determined to be a Start-Up Company's market value immediately before a Round of Investment.

Preference Shares are any class of shares that carry preferential or priority rights, compared to the rights of Ordinary Shares. The holders of Preference Shares may have a Preference or priority to receive Dividends (before dividends are paid to the holders of Ordinary Shares), surplus capital on the Liquidation of the company (before distributions of surplus capital to the holders of Ordinary Shares). They may also have the right to vote at a general meeting of the company on an "As Converted" Basis. There may also be other types of preference rights. This is the type of share usually sought by an Angel Investor and a Venture Capital Investor.

Redemption occurs when Preference Shares are redeemed by their shareholder, being given back to the Start-Up company in return for a predetermined amount, which might be the same as the price paid for the shares, but is more likely a predetermined higher amount.

Reserved Matters – see Consent Matters.

A **Round or Round of Investment** refers to a capital raising occasion where capital is raised in return for shares. A Round of Investment can be distinguished from other Rounds by labelling the Round a Series. (See Series A, Series B etc). Rounds are paid by instalments called Tranches (see Tranche).

A **Seed Investment** is a relatively small investment into a Start-Up Company to get it started. It could be made by an Angel Investor or a fund that makes Seed Investments. It could also be made by the Founder's friends and family.

A **Series A Round** is a company's first Round of Investment to a Venture Capital Investor. Shares issued to the Founders are not normally referred to as shares in a Series.

Series A Shares are shares issued in the course of a Series A Round.

A **Series B Round** is a company's Round of Investment that follows the Series A Round, etc
Series B shares are shares issued in the course of a Series A Round, etc.

A **Share Plan** is a plan under which shares are issued to a Start-Up Company's staff and directors to incentivise them, setting out the conditions under which this occurs, including Vesting conditions. Compare an ESOP.

A **Shareholders Agreement** is an agreement between a company and all its shareholders regulating their relationships on such matters as Consent Rights, Pre-Emption Rights, Tag Along Rights, Drag Along Rights, etc.

Tag Along rights are a Preference Shareholder's right to participate in or "tag along" to an Ordinary Shareholder's sale of the Ordinary Shareholder's shares.

A **Term Sheet** is an investor's written investment proposal to a Start-Up Company, setting out in detail the terms of investment proposed by the investor, including the rights attached to Preference Shares, and other matters.

A **Trade Sale** occurs when either

1. a Start-Up Company sells all of its assets, which is usually followed by Liquidation and the distribution of the proceeds of sale amongst the shareholders, or
2. all the shareholders sell all of their shares to the same buyer.

A **Tranche** is an instalment of a part of a Round, the payment of which is usually triggered by a Milestone taking place. See also Capitalisation Table.

An **Up Round** is a Round of Investment where the price per share is higher than in the previous Round. Compare Down Round.

A **Venture Capital Investor** is a fund manager, managing a fund that is set up to make venture capital investments into start-up companies, managing those investments, and then seeking Exits.

Vesting refers to the progressive accumulation or “vesting” of shares under a Share Plan or an Option Plan. For example, a staff member is allocated 100,000 Ordinary Shares, with 20,000 of them “vesting” each year. If the staff member resigns after 2 years, the staff member in fact only has 40,000 shares, not 100,000. “Vesting” occurs when the condition that attaches to the staff member’s ownership of shares takes place. It could be by reference to a period of service, or the achievement of a Milestone.

Voting on an “as converted basis” refers to a Preference Shareholder calculating the number of Ordinary Shares that the Preference Shareholder would have if it Converted its Preference Shares into Ordinary Shares on the date of the company’s general meeting, taking into account for example, an Anti-Dilution clause, such as a Full Ratchet or a Weighted Average Ratchet, and then voting on any question at the general meeting with the number of votes equal to the number of Ordinary Shares it has calculated, instead of the number of votes equal to the number of Preference Shares it actually holds, if the former results in a higher number than the latter.

A Weighted Average Ratchet is an Anti-Dilution provision where the rate of Conversion is calculated by reference to an average price for which shares are issued in all Down Rounds, as well as by reference to the extent of capital raised in each of those Down Rounds. Compare Full Ratchet.

6.2 Venture Capitalists’ Investment Criteria

Many years ago I attended a talk given by a venture capitalist.

He was introduced, and stood up to speak.

“Let’s play a game,” he announced. “Let’s play Hangman,” he said, referring to the strangely named guessing game. He stepped to the white board and drew the scaffold.

“Can anyone tell me what the most important thing is to a venture capitalist when deciding whether or not to make an investment?” he asked. “If anyone guesses correctly, you all collectively win. Each time there’s a wrong answer, I’ll draw part of the man. If I get all the way to drawing the hung man, I’ll win,” he explained.

A few people in the audience raised their hands.

He indicated to one person. “Having a strong patent” was volunteered.

“That’s very important” the venture capitalist replied, “but that is not the *most* important” he continued. He walked back to the whiteboard and drew a head.

He nodded to another member of the audience. “A large market,” was said.

“That’s really important as well, but it’s not the *most* important,” he repeated. Again, he headed to the whiteboard and drew another body part on the emerging stickman.

He repeated his question, "what is the *most* important thing is to a venture capitalist when making an investment decision?" This time he emphasised "*most*".

"A quick pathway to market" one person responded.

"A realisable exit" another responded.

"Reliable financial forecasts" was volunteered.

With each suggestion he shook his head, and drew another body part on the almost completed stickman.

He smiled. "One more incorrect response and I win" he said gleefully.

There was hesitation. No one wanted to be the one to give the last incorrect answer that would give the game to the venture capitalist.

A hand arose.

The venture capitalist looked over and acknowledged the hand's owner.

"A good CEO," was volunteered.

"No," the venture capitalist said, as he triumphantly stepped back to the whiteboard to draw the stickman's last body part.

"Hung. I win," he announced.

Turning to his listeners, "the *most* important thing to a venture capitalist when deciding whether or not to make an investment is 'People' he said.

A protest ensued. "The last response was 'a good CEO'. That qualifies, surely."

The venture capitalist shook his head.

The audience clearly felt that the answer qualified. The controversy was left unresolved.

Whether it should have qualified or not, the venture capitalist had made his important point.

Amongst the many factors that a venture capitalist considers when deciding whether or not to invest in a start-up company, the most important is the people behind the start-up company. There is an old anecdote that supports that assertion: "A venture capitalist would rather invest in a second (or even third) ranking opportunity backed by a good team, than invest in a first ranking opportunity backed by a doubtful team."

In fact, so important is this single factor that the second-most important factor influencing the venture capitalist's decision is not in proximity, but instead ranks in a distant second place.

Having a strong intellectual property position almost goes without saying. A venture capitalist needs to be confident that the start-up company's business, in which the speculative investment

will be made, can be protected with a robust intellectual property position. This deters infringers, and provides confidence that an infringer can be stopped.

A large market may or may not be important. A start-up company with a small but niche and profitable market can be very attractive.

A quick pathway to market, may or may not be important. For a biotech start-up company, there is no such thing as a quick pathway to market. It is most often a case of developing the intellectual property to a point where a trade sale would be attractive. For an IT start-up, a quick pathway to market will rank with importance.

The importance of a realisable exit cannot be understated. A venture capitalist is not a long term investor. Having an achievable exit opportunity (by which the venture capitalist gets its return on its investment) is of critical importance.

Financial forecasts for a start-up company that is still to complete the “D” phase of its R&D, a venture capitalist knows, can be wishful and fanciful, and therefore of little persuasive value. So, what does it mean when a venture capitalist says that the single most important consideration in its decision to invest in a start-up is the start-up’s people?

What attributes in the people behind the start-up company is the venture capitalist seeking?

There are many.

Expertise. Is the team expert in the start-up’s technology? (Vital) Does the team have experience in business? (Desirable)

Trustworthiness. Can the founders be trusted to accept corporate decision-making? (That is, will the founders accept and carry out the decisions of the start-up company’s board, instead of doing what they please?). Can the founders be trusted to share information? (That is, share all information with the Board, the good, and the not-so-good?). Do the founders keep promises? (From something as simple as calling back when they say they will, to furnishing a report when its due?). Are the founders willing to be influenced? (That is, are they willing to listen to and take into consideration the experience and suggestions of others – like the Board?). Are the founders fair?

Motivation and commitment. Are the founders ready to work 10 – 12 – 14 hours a day if necessary, 7 days a week if necessary, to make the start-up company a success?

Connection. Do the venture capitalist and the founders like one another? They will work together, intimately, for a long time, so they need to like each other.

All of these “people” considerations dwarf all other considerations.

They boil down to the question “Will this team make this start-up company a success?” If that question, with all its components, cannot be confidently answered in the positive, all the other considerations do not matter.

6.3 Start-Up Companies and Anti-Dilution Rights

An investor's preference shares

An angel investor or a venture capital investor will almost always seek preferential shares in a start-up company in which they invest.

Ordinary shares confer rights to a dividend, vote (one vote per share), and to a proportion of the assets of the start-up company in the event that it is liquidated. These rights are equal rights.

Preferential shares however confer preferential rights upon the angel investor or venture capital shareholder. These preferential rights or priority rights confer upon such an investor preferential rights in relation to such matters as the payment of dividends before payment to the ordinary shareholders, voting (more than one vote for each preference share), and the preferential right to a proportion of the assets of the start-up company in the event that it is liquidated, before any distribution to ordinary shareholders.

Much can be said about each of these preferential or priority rights, and others. The particular right that is the focus of this edition of IP Bits is an investor's anti-dilution right.

What is an anti-dilution right?

An anti-dilution right is an investor's right to effectively have a "free top up" in the number of its shares if a later investor is issued shares at a lower price than the price paid by the earlier investor. Normally, the issue of new shares to a later investor operates to dilute all the shareholders, in the same proportion as their respective shareholdings.

This proportional dilution may dilute each shareholder's proportionate ownership of the start-up company, but it does not necessarily dilute the value of each shareholder's shares, if the new shares to the new investor were issued for a price that is greater than the price for which previous shares were issued. In fact the opposite should occur, with the value of each existing share increasing as a result of the new investor buying shares at a higher price.

An investor is not concerned about this scenario. Rather, it is concerned about a scenario where the later investor is issued shares for a price that is less than the price that the first investor paid. In this case the first investor's shares have reduced in value, and the first investor seeks a "free top up" in its shares to compensate it for that reduction in value.

That top up to the earlier investor is achieved by an anti-dilution "ratchet provision."

The "full ratchet"

Consider this scenario:

1. a start-up company's pre-investment valuation is \$400,000, and its founder has 400,000 shares

2. an investor (A) invests \$100,000 for 100,000 Series A Preference Shares, at \$1 per share
 3. there are now 500,000 issued shares of which the founder has 80%, and A has 20%
 4. 6 months later, given prevailing conditions, a new investor (B), is unwilling to pay more than 25c per share, assessing the market value of the company to be unable to support a price per share higher than 25c, and pays \$25,000 for 100,000 shares, at 25c per share.
 - 5.
- There are now 600,000 shares on issue (400,000 + 100,000 + 100,000).

If A was to convert A's 100,000 Series A Preference Shares into ordinary shares at \$1 per share, the price that it paid for the shares, it would on conversion have 100,000 ordinary shares, which is 16.7% of the start-up company (100,000 / 600,000).

However, a full ratchet anti-dilution provision would allow A to convert A's Series A Preference Shares to ordinary shares, not at the \$1 paid by A, but instead at the lowest price for which any shares have been issued by the start-up company after A's investment, in this example 25c.

The full ratchet anti-dilution provision works as follows:

$$\frac{\text{NSA} \quad \times \quad \text{OPP}}{\text{LP}} = \text{NOS}$$

where:

- NSA is the number of Series A Preference Shares that the investor is converting to ordinary shares
- OPP is the original purchase price paid for those Series A Preference Shares by the investor
- LP is the lowest price paid for any share in the start-up company by any shareholder, after A's investment, and
- NOS is the number of ordinary shares that the investor will receive upon conversion.

Applying this formula to our scenario,

$$\frac{100,000 \quad \times \quad \$1}{.25c} = 400,000$$

There are now 900,000 shares on issue (400,000 + 400,000 + 100,000).

By A converting its 100,000 Series A Preference Shares into 400,000 ordinary shares, instead of having 16.7% of the start-up company, A now has 44.4% of the company (400,000 / 900,000).

Rationale for the full ratchet

The rationale for an investor having these full ratchet anti-dilution rights is that it protects investor A from having over valued the start-up company at the time of A's investment. In other words, if investor A had more accurately valued the company at the time of investing, the price per share

that investor A would have paid (\$1) would have been the same or less than the price per share paid by the later investor, B (25c).

Is the full ratchet fair?

This rationale is often criticised, as a valuation of a start-up company at the time of investment factors in many things, and one of those is risk.

Risk can be factored in by taking into account the probability of success or failure. This is easily done in some industry sectors, such as the pharmaceutical sector, by including recognised mathematical probabilities of success and failure into a risk adjusted discounted cash flow analysis. For industry sectors where it is too difficult or impossible to quantify risk mathematically in this way, risk is factored into the valuation by employing a high discount rate in the risk adjusted discounted cash flow analysis.

When risk is factored into a start-up company's valuation in either way, the result is that the valuation undertaken by investor A has taken into account future events that have a devaluing effect, including those which may influence investor B to value the start-up company 6 months later at a lower price per share. On that basis, the original valuation was not an over-valuation when it was undertaken by investor A, and the price paid by investor A at that time already reflected the risk of there later being a lower valuation.

Secondly, there may be other explanations for the down round (that is, investor B paying 25c per share rather than \$1 per share), including:

1. the down round occurs not because investor A's valuation was an over-valuation, but instead because investor B's later valuation is an under-valuation
2. prevailing economic conditions may impact negatively on the investment climate, with the down round reflecting investor reticence, rather than the company's value.

The “weighted average ratchet”

Let's now continue our scenario. Suppose 12 months later there is an up-round, when another investor (C) invests \$150,000 for 100,000 shares, paying \$1.50 per share (called an up-round because \$1.50 is greater than the 25c share price in the previous investment round made by B). This may occur because the start-up company's opportunity has been validated, technical obstacles may have been overcome, the investment climate has improved, or any other of a myriad of reasons.

Should in those circumstances investor A still have the benefit of the full ratchet provision, taking advantage of the significantly lower 25c share price when B invested?

B's investment was a modest one of \$25,000, so doing so confers upon investor A something of a windfall, as it results in A converting its 100,000 Series A Preference Shares into 400,000 ordinary shares, and according to some, unfairly diluting the founders and any other shareholders holding shares at the time of B's investment.

Sometimes it is argued that a later up round should result in the prior down round being disregarded when determining the rate at which A will convert A's Series A Preference Shares. An alternative is for investor A to have a weighted average ratchet, rather than a full ratchet. The weighted average ratchet may be:

$$\frac{\text{NSA}}{\text{Conversion Price}} \times \text{OPP} = \text{NOS}$$

where:

NSA	is the number of Series A Preference Shares that the investor is converting to ordinary shares
OPP	is the original purchase price paid for those Series A Preference Shares by the investor
NOS	is the number of ordinary shares that the investor will receive upon conversion.
Conversion Price	is the lower of: (a) OPP, and (b) AI / SI

where

AI	is the total amount invested in the start-up company in later rounds by investors B and C
SI	is the total number of shares issued in later investment rounds by investors B and C

Applying this "weighted average" ratchet to our scenario:

$$\begin{aligned} & \frac{100,000 \times \$1}{\$175,000 / 200,000} \\ &= \frac{100,000}{0.875} = 114,286 \end{aligned}$$

The number of shares now is 714,286 ($400,000 + 114,286 + 100,000 + 150,000$).

Converting at B's price (.25c) will convert A's 100,000 Preference shares into 400,000 ordinary shares, giving A 40% of the company ($400,000 / (400,000 + 400,000 + 100,000 + 100,000)$).

But converting at the weighted average price, which takes into account both B's and C's prices, as well as the number of shares they bought, will convert A's 100,000 Preference shares into 114,286 ordinary shares. This gives A 15% of the company ($114,286 / 714,286$).

The rationale for this approach is that whatever may have been the reason for the down round (B's 25c round) is later either overcome or demonstrated not to have been justified, as is shown by the later up round (C's \$1.50 round).

The impact of using the weighted average ratchet rather than the full ratchet, is that a down round (like B's 25c round) will have a much less impact on arriving at the Conversion Price, as the weighted average ratchet also takes into account a later up round.

This is regarded as a more equitable result for the founders, and other shareholders.

7. TECH TRANSFER BEST PRACTICE

7.1 Downsides of Assigning IP for Royalties

Introduction

Normally, royalties are associated with a license. They are amongst the ongoing obligations upon a licensee, in return for the ongoing right under the license to exploit the licensed IP.

Normally also, an assignment of IP has no ongoing rights or obligations, since all the rights upon assignment vest in the assignee, and the assignment is in return for a lump sum payment.

Transaction	Description	Ongoing rights and obligations	Financial terms
License	Licensee is granted permission to use the Licensed IP for the term of the license	Always	Licensee pays an ongoing royalty to the Licensor
Assignment	Permanent divestment of ownership of IP, which from the time of assignment is owned solely by the assignee	Not normally	Assignee pays a “once-only” consideration, such as a lump sum.

Does that mean that an assignment must be in return for a lump sum payment and cannot be in return for royalties?

Not at all. There is no legal impediment to an assignment in return for royalties. But, there are some downsides. They arise because an assignment cannot be terminated.

An assignment cannot be “terminated”

A licensor may terminate the license if its terms are breached by the licensee. The licensor’s power to do so deters a licensee from breaching the license terms.

This deterrent effect operates high in a licensee’s mind. It does not want to put at risk its investment under the license, nor the business that the license enables, both of which will disappear if the license is terminated by a licensor as a result of the licensee’s breach.

But this is not so with an assignment, under which the ownership of assigned IP is transferred from the assignor to the assignee. Once the ownership of the IP vests with the assignee, that ownership cannot be “terminated”.

A seller of a car cannot 6 months after the sale “terminate” the sale and get the car back. This is a meaningless concept in the context of a transfer of property. Similarly, a seller of a house cannot 6 months later “terminate” the sale and get the house back. Again, this is a meaningless concept in the context of the transfer of property. So also, the termination of transfer of IP, which is what an assignment is, is again a meaningless concept. IP of course, is also property.

If an assignee has ongoing obligations to the assignor under the terms of the assignment, unlike a license, termination not being possible, there is no deterrent that will ensure compliance with those ongoing obligations upon the assignee.

Unlike a licensee, who relies on the ongoing rights under a license, an assignee, being the owner of the assigned IP, does not need any ongoing rights to the IP from the assignor.

Downside #1: limited options when royalties are not paid

A licensee that does not pay royalties runs the risk of the license being terminated and the licensed rights being lost.

If an assignment of IP is made in return for ongoing royalties instead of a lump sum payment, the failure to pay royalties cannot result in the “termination” of the assignment.

A license has the effect of deterring a licensee from breaching its terms by not paying royalties when they are due. There is no such deterrent when an assignment takes place.

An assignor may sue for damages for the unpaid royalties. But, royalties may have to be unpaid and accrue for a long time before there is economic justification in commencing legal proceedings. In the meantime, the assignor is frustrated by the assignee’s disregard for the agreed terms of the assignment, as well as the assignee’s disregard for the assignor’s demands for compliance.

Downside #2: no more royalties if the assignee liquidates

If a licensee goes into liquidation, generally, the licensor can terminate the license, find another licensee, re-license the IP, and continue to receive royalties from the new licensee.

This cannot be done if IP is assigned. If the assignee goes into liquidation, the IP, being the assignee’s asset, it is treated like all the assignee’s other assets, and is sold to fund payments to creditors.

The assignor has no automatic right to the IP that it assigned. As a former owner of the IP, like a former owner of a car or a house, it has no rights.

Unlike a licensor, an assignor therefore has no opportunity to re-license and obtain royalties from a later licensee.

Downside #3: no more royalties if the assignee in turn assigns

Suppose an assignee, after the assignment, in turn assigns the IP to a new assignee. Who will pay royalties to the assignor now?

The assignee will not be liable for royalties (a payment based on sales) because the assignee is not itself making sales. The new assignee will also not be liable for royalties because there is no contract between the assignor and the new assignee which records such an obligation upon the new assignee.

The result is that sales are made and profits are earned, but the assignor, who was promised royalties on those sales in return for the assignment, receives nothing.

This risk could be lessened by a provision in the assignment requiring the assignee not to re-assign the IP without simultaneously novating the royalty obligations. This would protect the assignor's right to royalties, because the new assignee will as a result have contractual obligations (under the novation) directly to the assignor.

This however does not prevent an assignee disregarding that provision, and assigning the IP without the novation. While the assignee in those circumstances can be sued for that breach, practically, this is not an option if the assignee has no assets, or has gone into liquidation.

Downside #4: limited options when diligence obligations are breached

Diligence obligations are obligations upon a licensee to diligently commercialise. They are obligations beyond "best" or "reasonable" "efforts" or "endeavours" to commercialise, which generally, are ineffective. (See previous edition of IP Bits [What Do "Best Endeavours" and "Reasonable Endeavours" mean?](#), and [The Hardest Part of a License to Negotiate - Diligence Obligations - Part 1](#), [Part 2](#), and [Part 3](#).)

Diligence obligations upon a licensee can take many forms, such as:

1. the achievement of milestones demonstrating the successful progression of the pathway to market
2. achieving a minimum level of sales over defined periods in defined markets
3. the payment of minimum royalties
4. minimum development expenditure
5. minimum marketing expenditure

Under a license, if diligence obligations are not met, ultimately a licensor can terminate the license, and re-license the IP to another licensee, who can successfully commercialise.

Diligence obligations under an assignment cannot result in the termination of the assignment, so there cannot be such a re-grant of rights as can occur when a license is terminated.

While it is true that an assignee that does not meet diligence obligations can be sued for damages, there will be evidentiary challenges, as well as the challenge of the legal expense of bringing proceedings, both of which will deter an assignor.

Do these downsides really happen?

Not often, but regrettably, they do from time to time.

Conclusion

There is no impediment to assigning IP in return for royalties. However, it is because of these downsides that an assignment in return for royalties is uncommon.

More typically, the type of transaction is driven by the type of financial consideration under the transaction:

1. if royalties are to be paid, rights that can be terminated for non-payment are granted, under a license,
2. if a lump sum payment is to be paid, with neither party having ongoing obligations to the other, an assignment is appropriate, and
3. if a lump sum is to be paid by instalments, initially a license is granted, with an assignment taking place upon the payment of the last instalment.

7.2 Lurking Legal Traps: How IP is described

Introduction

It goes without saying that intellectual property must be accurately represented when it is described to a potential commercial partner. It is easy to recognise that as a principle, but its implementation is not always as easy.

We do not go out intending to inaccurately describe our technology, nor to deceive or mislead our potential commercial partners. But, innocently and unknowingly, that happens sometimes. And we may not know that it has happened until something goes wrong, like a legal claim is made.

Examples

Here are just a few examples of occasions that involved inaccurately describing IP, legal claims being made, having to pay out damages, and damaged reputations.

Example 1:

A TTO prepared a written technology description, intending to use it to help market the IP's commercialisation opportunity. It described having successfully inserted a gene known for its yield

increasing properties, into a crop. After a period, the genetically modified crop was removed from the city campus glasshouse to make space available for other experiments, so no further samples of the GM crop were available. The patent was licensed. For 3 years the licensee was unsuccessful in itself producing the crop with the yield gene successfully inserted. A legal claim was made, asserting that the TTO and the university had misrepresented the technology. Further experiments by the licensor also failed to produce a GM plant. It was discovered that the research team's confirmation that the crop was transgenic 3 years earlier was not done with a PCR test, but with an older technology - a southern blot test, which had been less than robustly done. The university paid out to the licensee a negotiated settlement amount of \$3 million.

Example 2:

A TTO's tech transfer manager made a presentation to a company describing the IP that the company was interested in licensing. It said that "the chemical separation method described in the patent is reliable." The company did its own experiments and found the catalyst and method to work. It licensed the patent, for its own use, as well as to commercialise it by manufacturing and selling the catalyst to enable buyers to use the separation method themselves. When marketed, it did not always work. The market responded negatively, commercialisation failed, and the licensee lost its investment of \$1 million. Subsequent analysis found that the separation method had an 11% error margin, which was an intolerable margin of error for industrial application. The licensee claimed that the TTO had misrepresented the technology. The licensee was paid agreed damages of \$900,000.

How can misrepresentations happen?

In the first example the misrepresentation occurred because the TTO repeated statements made by the research team. They honestly believed that the transgenic plant had been produced. This is what was represented to the licensee. But even an honestly held belief can amount to a misrepresentation if a statement communicating that belief is wrong. In the second example the misrepresentation was made by the TTO itself. Again, the statement made was the result of an honestly held belief, but again it shows that a mistaken but honest belief can still amount to a misrepresentation.

Misrepresentations can also occur of course when a statement is made that is known to be untrue.

A misrepresentation can also occur when a statement is made that is untrue, when it is made recklessly, without regard to whether it is true or not.

Intentional untrue statements do not represent the biggest risk. Licensors, inventors and TTOs do not go out intending to misrepresent. The biggest risk of misrepresentation does not involve dishonesty, nor an intention to mislead or deceive. Rather, the biggest risk of misrepresentation occurs when statements are made that are honestly believed, but they are too generous, or are made with such passion and enthusiasm that they contain unwarranted extrapolations or sweeping statements.

What amounts to a misrepresentation ?

A misrepresentation is:

1. a statement
2. that is incorrect
3. which is relied upon by a person that enters into a contract.

A statement can sometimes include an opinion. A statement can also be inferred, for example, from conduct, and even from silence, if the circumstance support the inference.

An intention to misrepresent is not relevant. What matters is whether or not the statement was incorrect.

If the three conditions are met – statement – incorrectness – reliance, and the other party to a contract recording a technology transfer transaction (license agreement, research agreement, collaboration agreement, consulting agreement, etc) suffers loss, a legal claim can arise. A claimant used to have restrictions on what could be claimed.

For some types of misrepresentation only termination of the contract could arise. For other types, a claimant had to choose between termination and damages. The general law in Singapore, Hong Kong, Malaysia, United Kingdom, the United States, and elsewhere still preserves these distinctions.

However, modern statutes have swept away these distinctions, so that in all those countries a claimant can both terminate, as well as be awarded damages.

Misleading and Deceptive Conduct

In some countries the law in relation to misrepresentation has largely been superceded by legislation which makes misleading and deceptive conduct unlawful. For example, section 18 of the Australian Consumer Law (which despite its name applies to business to business transactions as well as to business to consumer transactions), states:

“A person must not, in trade or commerce, engage in conduct that is misleading or deceptive or is likely to mislead or deceive.”

This very broad provision applies to "conduct" broadly, which includes oral or written statements, conduct, and even silence, depending on the circumstances.

Avoiding the risk – strategies that do not work

It is usual for contracts recording the terms of tech transfer transactions to include provisions such as an acknowledgement by the parties that there have not been any representations made, and that the whole of their agreement is contained in the written contract.

These are not legally effective to exclude or restrict liability for misrepresentations or misleading or deceptive conduct. Modern statutes in Australia, Singapore, Hong Kong, Malaysia, United Kingdom, the United States, and elsewhere that provide that the provision of any contract that attempts to exclude or restrict a liability for a misrepresentation or misleading or deceptive conduct is ineffective.

Avoiding the risk – strategies that do work

There are strategies to avoid these risks. These are a few:

Strategy 1:

Engage with the inventor and the research team, and ask them about the technology:

1. Are their results repeatable?
2. To what extent have they been repeated? Have there been occasions when they could not be repeated? What were the reasons for that?
3. Is the technology scalable?
4. Are there impediments or unknowns in seeking to scale up?
5. Has the research team already communicated anything to any potential commercial partner? If so, what was it?

Strategy 2:

Prepare a “Technology Script” that contains all the facts about the technology that you can confidently draw upon and repeat to potential commercial partners. Check with the inventor to make sure that you have included everything that you should and have not omitted anything, but most importantly, to check that nothing is included which is inaccurate or liable to misinterpretation. This script may be shared with potential commercial partners, but that is not always the case.

Strategy 3:

Prepare a “Commercialisation Script” that contains all the facts about the commercialisation opportunity that you intend to draw upon and repeat to potential commercial partners. It may include information about the size of the market, competitors, market share, etc. Ensure that every fact is recorded accurately, without extrapolation. Evaluate each fact. If suspicious, corroborate the fact with another source. Footnote every fact to record the source(s) of that fact, such as a publication, report, web site etc, so that you can identify the source(s) of the fact if the need arises. This script would not normally be shared with potential commercial partners.

Strategy 4:

Stick to the Technology Script and the Commercialisation Script. If a question is asked that is not covered by a Script, defer answering it until you have checked with the inventor, or otherwise checked sources. Don’t extrapolate, and don’t make forecasts or predictions.

7.3 Maximising the Commercialisation Window

What is the Commercialisation window?

For universities and research organisations, the Commercialisation Window is the finite window of opportunity to find a commercial partner for a technology. The commercial partner might be a licensee, or an investor.

For different technologies, the Commercialisation Window is influenced by different factors. The comments here relate to the Commercialisation Window for patentable technologies.

When does the Commercialisation Window open?

The Commercialisation Window opens when the technology transfer office (“TTO”) first becomes aware of the IP. This will often be upon an Invention Disclosure being lodged with the TTO. But, it can be sooner, when the TTO actually becomes aware of the project with which the IP is concerned.

When does the Commercialisation Window close?

For most patentable inventions, the Commercialisation Window closes firmly 6 months before national phase patenting is due to commence.

Why is that so?

There is a “cast in stone” rule amongst universities and research organisations: the university will not pay national phase patent costs with its own funds, but looks to a commercial partner to fund national phase patent expenses. This “cast in stone” rule is best practice amongst North American, European, and Australian universities and research organisations.

The reason for this “cast in stone” rule is that universities cannot spend the substantial monies involved in taking IP through the national phase of patenting.

To patent in every country that the IP should be prudently patented will cost, depending upon the number of countries where patent protection should be sought, USD\$30,000 to \$300,000, or more.

A university cannot incur that level of expenditure for every parcel of IP that it would like to commercialise. To do so would be diverting monies from research, and other purposes, and this would not be acceptable.

A university therefore needs to find a commercial partner to fund taking a patent through national phase. If a commercial partner has been found at least 6 months before national phase, there is sufficient time to negotiate the commercialisation transaction under which funding for national phase patenting will be secured.

But, if no commercial partner has been found at least 6 months before national phase, there is insufficient time for a potential commercial partner to be found, for it to assess the technology, make a decision, to negotiate the terms of the transaction, as well as negotiate the contract recording the transaction. Accomplishing all these tasks in just 6 months being impossible, any further efforts to find a commercial partner would be wasted. The TTO is better off dedicating its resources, particularly the time of its staff, into finding commercial partners for projects that are further away from the Commercialisation Window shutting. To continue commercialisation efforts upon a project where its Commercialisation Window has shut is to neglect the projects whose Commercialisation Window is still open.

How long is the Commercialisation Window open?

The duration that the Commercialisation Window is open is not long.

If a provisional patent application is filed, followed by a PCT application 12 months later, there is then 18 months to national phase. 12 and 18 months is 30 months. Subtracting the last 6 months, the Commercialisation Window has a duration of 24 months. To this is added the time between the Invention Disclosure (or when the TTO first became aware of the invention), and the filing of the provisional application.

When the Commercialisation Window is open for this 24 month period, there is a reasonable timeframe within which to find a commercial partner.

If no provisional patent application is filed, and only a PCT application is filed, the duration that the Commercialisation Window is open is still 24 months, since national phase commences 30 months later ($30-6 = 24$ months).

Best practice: filing both a provisional and a PCT application

If the duration that the Commercialisation Window is open is the same - 24 months – whether only a PCT application is filed, or a provisional application followed by a PCT application is filed, is there any advantage in filing two applications instead of one?

For most technologies, the filing of two patent applications, the provisional application, and the PCT application, is international best practice, and prudent. The cost of the two applications is comparatively modest, so both applications can be made without a commercial partner. A provisional application is an inexpensive application, which can be filed to set the priority date, and allow more research to be done. In the period that follows the filing of the provisional application the university or research organisation can continue to conduct further research and collect data, enabling the patent claims that will be made in due course to be as robust as possible.

Maximising the value proposition for a prospective licensee - and the value to the licensor

If a TTO proceeded itself to national phase, without yet having a commercial partner, the usual result will be choosing only a few countries in which to pursue patent protection. A TTO being unable to afford the significant patent prosecution costs of national phase, it would in this case typically choose just a few countries to prosecute the patent in, such as its own country, and the United States. Or, perhaps just its own country. The result is that what the TTO offers to a commercial partner is limited to just one or a few patents, in just one or a few countries. This will only have a modest value to the licensee, and will be reflected in the modest financial terms of any license.

But, by negotiating with a licensee while a patent application is still in the PCT stage there is the prospect of the maximum value accruing to both the licensor and the licensee. The licensee, which will fund the patent prosecution, will in its own interests seek national phase to proceed in all the countries where patent protection should be prudently pursued.

The result is that patent protection is maximised. In turn the value of the IP the subject of the license is maximised. And in turn, the financial terms under the license will be maximised. A license of just a few patents will earn royalties in just a few countries. A license of a pending PCT application with the prospect of patents in many countries will earn significantly more royalties.

Commercialisation Window is a decision making tool

It is very important that a TTO is always mindful of the Commercialisation Window for each commercialisation project, and at which point in the windows' opening each project lies. In this way the Commercialisation Window becomes a decision making tool, helping the TTO make well informed decisions about a project.

Realising the point at which a project lies in its Commercialisation Window might suggest that more resources should be devoted to the project to accelerate finding a commercial partner. Or, it might suggest that no further resources should be applied, and that the resources available to the TTO should be directed to other more worthwhile projects instead.

7.4 Measuring a Technology Transfer Office's Performance

Introduction

Sometimes the performance of a TTO, to assess whether it is achieving its mission and performing satisfactorily, is measured by looking at its Profit and Loss Account (P&L), to see whether it has operated at a profit, or at a loss, and to see the extent of such a profit or loss.

A profit is judged to indicate good performance, and the higher the profit, the better the performance. Conversely, a loss is judged to indicate poor performance, and the greater the loss, the poorer the performance.

This is certainly one way of measuring a TTO's performance. But is this the best way of doing so? A TTO may have an impressive profit recorded on its P&L. But that could be the result of a single successful license, and the TTO might otherwise be performing poorly in the achievement of its mission.

Conversely, a TTO may have a modest profit on its P&L, or even a loss, yet it may be performing outstandingly well in the achievement of its mission.

It depends how a TTO's mission is defined.

Is its mission to earn a profit?

Most would say that a TTO's mission is more than to earn income, or to make a profit. If its mission is simply to make money, then looking at its P&L will reveal if that simple mission is being achieved.

But usually a TTO's mission is a more complex one. Not that there is anything the matter with a TTO making money. A TTO's revenue provides income for example, for more research, for the equipping of labs, and for the purchase of expensive laboratory equipment. It also provides income, a proportion of which is distributed to the inventors or creators of the intellectual property the commercialisation of which earned that income. It also provides income for the university or research organisation itself, better equipping it to meet its infrastructure and other needs.

A more complex mission

A TTO has a more complex mission. Its mission needs to be considered in the broad framework of the university's mission. A university's mission is often framed by reference to teaching, research, and community service.

A TTO does not directly impact upon a university's teaching mission. But a TTO can make a significant contribution to the university's other two missions. The TTO's own mission could be described as:

1. to assist the university's mission of carrying out research
2. to assist the university's mission of service to the community.

How a TTO achieves its mission – increasing research

A major way that a TTO helps the university achieve its mission of doing research, is by the TTO attracting research funds to the university that the university might not otherwise have attracted. A TTO does this by seeking out opportunities with industry partners for contract research, sponsored research, and collaborative research. A TTO therefore creates opportunities for research, funded by sources other than public sources of research funding.

The research funds received under these contracts increase the university's capacity to do research. They add to the total research budget of the university. But they do not impact on the TTO's P&L account, since normally all the monies received from the industry partner, apart from a TTO's modest administration fee (if any), are paid to the university.

The activity of seeking out relationships with industry, to foster and promote the university's research skills and expertise may well be one that operates at a modest profit, or a modest loss, but in either case may bring in significant industry research monies to the university.

The amount of funding granted to a university by Government is subject to complicated criteria and formulas. Included amongst that criteria in some countries, is the amount of research monies received by the university from industry. The rationale is that the more research monies that a university can attract from competitive grants and competing for industry research funding, then the greater its research capability and the greater its reward, as well as the greater accommodation of its research objectives. This effectively means that the more research monies a university attracts, the greater the research funding the central university receives from Government.

Rather than looking at the TTO's own P&L, a more revealing measure of a TTO's performance may be looking at the amount of research funding that the university received, but would not have secured without the TTO's assistance:

1. the amount of industry research monies secured by the TTO, and
2. the component of Government research funding awarded to the university based on the amount of industry research monies secured by the TTO.

How a TTO achieves its mission –the University's community service

An important way that the University serves its community is by teaching its future leaders and entrepreneurs. Another way that the University serves its community is by making the outcomes of its science and technology research contribute to the social and economic improvement of the community. It is public funds which funded the research whose outcomes are therefore intended to benefit the public.

The achievement of this objective occurs by technology transfer, whereby the university's research outcomes are made available to industry partners, for example by licensing, to enable them to commercialise the new products, services and knowledge arising from the university's research. The commercialization of these new products, services and knowledge results in:

1. new products and services available to the community
2. increased employment
3. potential exports, improving balance of payments
4. potential import replacement, improving balance of payments
5. more income in the community from increased employment and increased business profits, as well as its multiplier effect in the economy
6. an increase in the tax base, enabling more taxes to be collected, and in turn allowing Government to apply its increased tax revenue to fund worthwhile projects benefitting the community.

To achieve these objectives, technology transfer requires patience. The average time between the date of execution of a license for a biotech technology, to the first sale of the licensed product, and therefore the first receipt of royalties, is 8 years. For an engineering technology, the time for royalties to be received could be 3 to 5 years. Even for software, with the quickest time to market, it can be 1 to 3 years.

Measuring the performance of a TTO, given these timeframes, is therefore a more complex exercise than looking at its P&L. In fact, looking at its P&L can be misleading. It could record an impressive profit from a single transaction, yet the TTO may have underperformed in the achievement of its mission. Or, it could record a modest profit, or even a loss, yet have made an extraordinary contribution to the service of the community and the achievement of its mission.

A TTO's metrics

The metrics that are often used to measure a TTO's performance often include:

1. the TTO's Profit and Loss Account

2. the number of invention disclosures made to the TTO
3. the number of patent applications filed by the TTO
4. the number of licenses granted by the TTO.

But these largely measure a TTO's activity, and do not tell us much about a TTO's performance. Metrics to measure a TTO's real performance might include:

1. the amount of industry research monies secured to the university by the TTO
2. the component of Government research funding awarded to the university based on the amount of industry research monies secured
3. how many new jobs have been created by the TTO's licensees as a result of the opportunities created by the licenses
4. what the gross salaries of those persons are
5. how much revenue and profits licensees have realized from commercializing licensed products and services
6. the economic multiplier effect of 4 and 5
7. how many new businesses and start-up companies have been formed
8. to what extent have 3 to 7 occurred in the university's region, in the country, and internationally
9. how many vaccinations of a new vaccine have been given
10. how many patients have been treated with a new drug
11. how many patients have had a diagnosis of a condition
12. how many lives have been saved.

Answering some of these questions may involve effort to collect information. This information however can usually be easily obtained from the TTO's licensees.

Measuring these metrics will measure much more accurately, whether the TTO is achieving his mission, and in turn whether the TTO is contributing to the achievement of the university's mission.

Just as a university's achievement of its mission is not measured by how much money it receives and spends, so also a TTO's achievement of its mission cannot be judged by the simple criteria of how much it has received and spent.

7.5 Can Confidential Information be disclosed with no Confidentiality Agreement?

Introduction

This is a daily dilemma that every staff member of a Technology Transfer Office has to solve. On different occasions the answer will be different. There is no single answer to this question, other than "It depends". In this issue we look at some of the things that it depends upon.

The problem – destroys novelty and enables abuse

Disclosing confidential information without a confidentiality agreement will destroy the novelty of an invention, and disqualify the invention from being patentable. All the commercial advantages that may have accrued from the commercialisation of the invention might as a result be lost.

It also enables abuse. A recipient of confidential information, without any obligations of confidentiality (which usually encompasses the obligation to keep confidential as well as not to use the confidential information for purposes other than the permitted purpose) can use it in any way, without any accountability, and without the obligation to pay royalties or other financial compensation to the owner of the confidential information.

The dilemma

It would be nice to say that on all occasions nothing at all should be disclosed without first having a confidentiality agreement in place. Sometimes that can be achieved, but not always.

The person with whom you may want to have confidential discussions, not knowing what the confidential information is, cannot assess:

1. their interest or disinterest
2. whether to be bothered even reviewing a confidentiality agreement
3. whether they may already know the confidential information, and do not want to be burdened by having to prove that they already know it
4. whether the confidential information is in a field they are themselves developing, and that there may be a risk of intermingling of information which could lead to future disputes.

Some disclosure therefore has to be made before a confidentiality agreement is signed.

Sometimes the disclosure can be no more than describing the technology in general terms, without disclosing any real confidential information. That should always be preferred.

When that cannot be done, the difficult task is to assess what confidential information can be disclosed, and how far to go.

Published patent application

Has a patent application been published? This usually takes place approximately 18 months after the filing of the first application.

If so, you can freely disclose everything that was published – it is in the public domain anyway. But you must be careful not to disclose any confidential information that is not included in the published patent application.

Is a patent application about to be published?

If so, you can also freely disclose everything that will shortly be published – it will soon be in the public domain anyway. But again, you must be careful not to disclose any confidential information that is not included in the patent application about to be published.

Has a Patent Cooperation Treaty (PCT) application been filed?

If so, it will be published. You could go as far as disclosing everything in the PCT application as it will be published in due course.

This is unless putting it into the public domain so much earlier than the publication of the PCT application is disadvantageous. In that case, consider disclosing enough to get the other party interested. No question of destroying novelty will arise as the PCT application has been filed, and there might even be an earlier priority date if the PCT application was preceded by a provisional patent application.

Provisional patent application filed

The filing of a provisional patent application will confer a priority date, so disclosures after the filing of the application will not destroy novelty.

But, this case still needs to be carefully considered.

A provisional patent application may be allowed to lapse for any number of reasons. If a disclosure is made after the filing of the provisional patent application, that disclosure will not affect novelty in relation to the priority date for that application.

But if it is decided to allow that provisional patent application to lapse, and to refile a new application, that disclosure will be before the priority date of the second application, and it may adversely impact on novelty under the second application, and destroy patentability.

No patent application filed

In this case, consider deferring making disclosures until the patent application is filed, and also consider accelerating the filing of the application. It is always prudent to have an application filed before commencing discussions with potential commercial partners.

Sometimes however, the filing of a patent application may be some way off, and confidential discussions need to take place. A carefully considered decision will need to be made on the extent to make disclosures. If the technology cannot be protected by a patent, so it is never intended to file a patent application, again, a carefully considered decision will need to be made on the extent to make disclosures.

Can a Confidentiality Agreement be dispensed with?

Normally no. It is not just patent related information that can be disclosed in discussions with a potential commercial partner. There may also be disclosures of:

1. know-how and trade secrets
2. data from experiments
3. insights and the results of analysis
4. commercial information relating to the opportunity, and the market etc.

A confidentiality agreement needs to cover all of these, as well as cover the technology to be disclosed.