Commercialisation and Adoption of Horticultural Research

Workshop Materials
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This Manual has been prepared for a series of Workshops on Commercialisation and Adoption Planning for researchers and others in the horticulture industries. The workshops are conducted as part of the Horticulture Australia Limited (HAL) Project HG07051 by the Australian Centre for Intellectual Property in Agriculture (ACIPA).

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Introduction
Purpose of this Manual

This Manual provides Background Material and Case Studies for use in ACIPA’s workshops on 'Commercialisation and Adoption of Research'.

This Manual does not cover all aspects of commercialisation and adoption, but concentrate on the area of management of intellectual property and know-how arising from investment in research, to maximise benefits for the investors.

This requires an understanding of the strategic outcomes sought by the investing organisations as well as their policies in relation to commercialisation and adoption of intellectual property.

Whatever the policy and mechanism for use of the research outcomes, it is important that planning is incorporated as part of the project, from the time of application for investor dollars.

This Manual guides researchers and others involved in commercialisation and adoption of intellectual property through a structured planning process to help identify and manage their intellectual output for maximum benefit to the end users.

There is no attempt to prescribe best solutions, but rather to provide a set of questions to guide people to their own answers depending on the circumstances at the time.
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Commercialisation of Intellectual Property
1 Overview

Research leads to innovation and invention which in turn may lead to intellectual property. Most research is designed to result in innovation or invention that it is hoped will, in the short or long term, be used in a commercial business to help it retain its competitiveness. This is particularly so with research being undertaken through the Australian Rural R&D investment models.

Commercialisation of research results is used in a number of ways. For example, in intellectual property legislation and writings the use of protected IP is generally referred to as “Exploitation”.

The Horticulture Australia Ltd (HAL) web site defines commercialisation as:

1. Commercialisation is the process of taking a product (technology, plant variety etc) to market so that it can be made available to growers or other users.

2. This is usually done by a commercial business that completes the product development, then produces and distributes the final product. While not all project outcomes are commercialised, this approach is taken when it will be the most effective and sustainable way to deliver project outcomes and benefits to Australian growers.

3. The usual process involves registration of IP (eg by patent or PBR), selecting a commercial partner to deliver the product/technology in a manner that is most advantageous for Australian growers, then licensing the IP for commercial exploitation.

In general conversation, “commercialisation” is usually taken to mean protecting an invention through, for example, patent, trade mark or plant breeder’s rights registration and then licensing others to use the protected invention under terms and conditions established by the owner of the invention. The terms and conditions of use generally include the payment of a royalty to the owner, thereby providing a means to obtain a monetary return on the investment required to develop the invention in the first place.

The other component of “commercialisation”, often called “adoption”, is when results of research are either put into the public domain by the owner, or are transferred, often without additional charge, to end users for use in their commercial business. This process needs just as much careful planning and strategic thought as the more formal “commercialisation” process outlined above.

Whichever path taken by the owner of the IP, it is their decision and as such they need to clearly understand the implications of the path they are taking and the rights and obligations that “ownership” gives them.

In this section we look at 3 key aspects of the broader concept of commercialisation of intellectual property:

• Ownership
• The role of contracts, and
• Branding – an area that is often not given as much importance as it should, as tools such as trade marks, copyright and geographical indications can be very important.

2 Ownership

When thinking about whether and how to commercialise research outcomes it is essential that attention be paid to questions of ownership of intellectual property rights. There is sometimes a tendency to view questions of ownership solely in terms of the contractual relationship between the parties. However, it is also important to understand the other ways in which the law governs questions of ownership. In particular:

• When negotiating ownership contractually it is essential to understand who would be entitled to ownership in the absence of agreement – this is vital in ensuring that negotiations take place between the correct parties and that all the people who would be entitled to a share of ownership in the absence of agreement are bound by the negotiations.

• When negotiating ownership it is useful to have an understanding of how statute and common law deal with questions of ownership, since it is these legal rules that form the basis from which the parties are negotiating.

• Should the parties fail to reach agreement on questions of ownership (and there are circumstances where this can occur by accident) then it is the statutory and common law rules that will apply.

• The validity of certain contractual terms and conditions will be governed by statutory and common law rules.
It is statutory and common law rules that determine what rights an owner has. For example, whilst a contract may determine that two parties are co-owners of intellectual property, it is still necessary to look to statutory and common law rules to determine what rights a co-owner enjoys.

The rules governing the ownership and transmissibility of intellectual property rights in Australia vary between different forms of intellectual property. Nevertheless, it is possible to identify some general rules of thumb that are useful when thinking about ownership issues:

- Except where a work is made in the course of employment, the person entitled to first ownership of an intellectual property right will be its creator(s), that is, the person or group of persons most directly responsible for the production of the work, invention etc.
- Where a work is made by an employee in the course of his / her employment the person entitled to first ownership will be the employer. However, it may be difficult to determine when in fact a person is an employee (as distinct from an individual contractor) and when conduct is deemed to have taken place 'in the course of employment'.
- Intellectual property rights are a type of property and, generally speaking, they can be dealt with in the same way as any other form of property. Intellectual property rights can be bought and sold, licensed, mortgaged or bequeathed by will.
- Under Australian law (as in other common law jurisdictions) it is possible to assign ownership in an intellectual property right that has not yet come into existence.
- There are some rules under Australian law that regulate the form and content of agreements dealing with intellectual property rights. For example, there are rules regarding formalities for assignments of intellectual property rights (generally speaking a contract of assignment has to be in signed writing in order to take effect). Competition law and common law rules relating to restraint of trade may impact on the content of agreements dealing with intellectual property rights.

A further, related, issue is that some types of intellectual property create separate protection for the creators of the 'thing' in question. In other words, even though the property may have been vested in or may have been transferred to another person, the author or inventor may retain certain rights in relation to how the property is dealt with or managed. Australian law has generally been reluctant to recognise such rights, but the position is changing. Most notably, recent amendments to the Copyright Act have
seen the introduction of ‘moral rights’ for authors – for example, the right to be identified as the author of the work or the right to object to the derogatory treatment of the work. Moral rights and related forms of protection overseas can have an important impact on the management and commercialisation of intellectual property rights.

3 Overlapping Ownership

One unique difficulty confronting organisations such as Horticulture Australia Limited (HAL) and the Research and Development Corporations is that the researchers with whom they have relationships are often employed by or have connections with a number of different entities. It is not uncommon for an academic to be employed by a university and have some form of commercial relationship with a CRC. In a case where a researcher works for more than one organisation, that researcher, either as an individual or through multiple employers, may have entered into more than one contract in which it is stated that any intellectual property rights arising out of work done by that researcher belong to the other contracting parties. For example, a university may be entitled to intellectual property rights created by an academic in the course of employment but simultaneously a CRC may be entitled to an assignment of intellectual property rights created by the academic in the course of a CRC project.

In practice, it can be difficult, if not impossible, to determine where an academic's work for a university ends and his/her work for the CRC begins. Because this is an unusual state of affairs, there is a danger that standard form commercial contracts will not adequately resolve these issues. Thought therefore needs to be given to mechanisms capable of dealing with this unusual situation.

The most important first step is to have a procedure for identifying all of the parties who may be entitled to a share of any intellectual property rights, and then to ensure that all of these parties reach agreement on ownership. In the absence of such agreement, an RDC may discover that some other party is entitled to a share of ownership, or even in some cases be liable for inducing a breach of contract. Careful thought also needs to be given to the formal legal structure of the entities with which the RDCs and similar organisations are negotiating (such as unincorporated CRCs).
4 The Special Position of Academics

4.1 VUT v Wilson

A decision of the Supreme Court of Victoria has shed light on the issue of ownership of inventions made by academics, a matter that directly impacts upon the dealings of RDCs and similar organisations with universities and academics.

In *Victoria University of Technology v Wilson* (2004) Professor Wilson and Dr Feaver, both employed by VUT in the School of Applied Economics, were approached in July 1999 by a company called WTO about the possibility of VUT producing a range of online business and trade subjects for WTO. These were to be part of an accreditation process for traders so that they could take part in WTO's proposed electronic trade exchange. Wilson saw this as an opportunity to expand the range of VUT's courses. In spite of their lack of expertise, Wilson, Feaver and an associate set about developing a schema for the design of the electronic trade exchange system in September 1999. On 23 September 1999, the parties agreed to hold the intellectual property rights in the schema in 40:40:20 proportions. Relations with WTO soon soured. However, Wilson, Feaver and the associate continued to work on the schema, turning it into a different and more commercially attractive e-commerce model. Some of this work was undertaken at VUT using VUT's equipment. In March 2000, the parties applied for an Australian provisional patent for their system, and assigned their rights in the application to the newly incorporated Intellectual Property Systems Pty Ltd, in which they were the directors and shareholders. They filed the complete patent application in March 2001.

VUT claimed that the e-commerce system was made by Wilson and Feaver during the course of their employment with VUT, and as such the Intellectual Property rights in the system were owned in equity by VUT. However, Justice Nettle held that VUT was not entitled to the intellectual property rights in the invention. He held VUT's purported intellectual property policy was neither an express nor an implied term in Wilson and Feaver's contracts of employment. He also held that the invention was not created by Wilson and Feaver in the course of their employment with VUT. The real question was whether the work undertaken by Wilson and Feaver was of a type that they were retained to perform. It was noted that it was never part of the business of the School of Applied Economics to invent e-commerce systems such as the trading system in question. However, Justice Nettle considered that Wilson and Feaver's conduct in starting out on the project on the basis that they were acting on behalf of the university...
indicated that they were in fact retained to perform the work undertaken on the invention. Yet this did not mean that VUT owned any rights in the invention. Under the agreement of 23 September 1999, Wilson and Feaver had agreed that from that point they would own the intellectual property rights in the project – this was an indication that they were no longer acting on behalf of VUT in continuing with the project.

VUT also argued that as employees, Wilson and Feaver owed fiduciary duties to VUT, in particular duties not to take advantage of any opportunity of which they had learned by virtue of their respective positions within VUT. One of the key features of a fiduciary relationship (such as that between an employer and a high-level employee) is that a fiduciary must not put herself in a position where his/her personal interests and duties conflict. While academics are not prohibited from undertaking paid work outside their employment at universities related to their areas of expertise, they do have continuing obligations to their universities not to profit from opportunities that came to them as a result of their positions within their universities. Wilson and Feaver were found to have breached these obligations, with the effect that they were accountable to VUT in respect of the invention. This was because the opportunity to design the system was made available to VUT (that is, only to Wilson and Feaver in their professional capacities) and because WTO would have been content with any employee of VUT being involved in the process. Wilson and Feaver’s conduct in September 1999 foreclosed the possibility of VUT continuing to work on the project and enabled the academics to develop the invention in a private capacity. This was done without full disclosure and without the consent of VUT.

There are a number of implications of this decision:

- The decision confirms the difficulty of determining when an invention is created in the course of employment. In particular, it shows the problems in determining what academics are ‘retained’ to perform.

- More importantly, the decision indicates that even in circumstances where academics create intellectual property outside the course of their employment, they may still be liable to the university if they take advantage of opportunities that came to them as a result of their position within the university where this conflicts with their duties to the university. The Court interpreted the scope of this fiduciary duty broadly. Even though the nature of the project changed significantly over the course of time, the Court held that the academics had deprived the university of the opportunity to continue with the project.
4.2 UWA v Gray

University of Western Australia v Gray (No 20) [2008] FCA 498 (17 April 2008)²

The issue of an employer’s right to ownership of intellectual property developed by an employee was addressed in a judgement delivered by French J of the Federal Court on 17 April 2008.

Background

Dr Gray was employed by The University of Western Australia (UWA) in 1985 as a Professor of Surgery, to conduct and stimulate research. He was full-time until March 1997 when he changed to a 30% appointment.

His research before he joined UWA and while he was there (along with a team of other researchers) focussed on microsphere technologies for the treatment of liver cancer.

In 1997 Sirtex Medical Limited, was floated as a publicly listed company to commercialise and market the technologies. By 2000 Dr Gray was a director of Sirtex. In the late 1990s UWA was aware of Dr Gray’s involvement with a public company but by 1999 had formed a view that for the university to pursue any interest it might have in the intellectual property would be too difficult and not outweighed by any benefits. In October 2004, UWA decided to take action. There was an initial settlement which was appealed by Dr Gray to the Full Court. The Appeal was dismissed.

UWA claimed that:

- Dr Gray had breached his employment contract by not complying with disclosure and associated obligations imposed by its Patent Regulations which had been made in 1971 and its Intellectual Property Regulations of 1996.

- UWA claimed that it was an implied term of Dr Gray’s contract of employment that intellectual property developed in the course of his employment belonged to UWA.

Cross-claims were made and all but one (which does not influence the outcomes below) were dismissed.

Findings

The claims to ownership of the relevant inventions by UWA were dismissed and the reasons are summarised below:

- The 1996 intellectual Property Regulations had not been promulgated as required by the *University of Western Australia Act 1911* before 30 November 1997 and therefore French J proceeded on the basis that they did not come into effect before then.

- UWA could not rely on its 1971 Patents Regulations because from 1988 “it had effectively abandoned the Patents Committee mechanism for which the Regulations provided”. Instead UWA moved down a different pathway, using a company Uniscan the Centre for Applied Business Research to commercialise inventions. Therefore UWA had failed to maintain the notification mechanism necessary to allow staff to meet the terms in their contracts in relation to UWA’s 1971 Patents Regulations.

- Unless there is an express term in the contract of employment, “rights in relation to inventions made by academic staff in the course of research and whether or not they are using university resources, will ordinarily belong to the academic staff as the inventors under the 1990 [Patents] Act. The position is different if staff have a contractual duty to try to produce inventions. But a duty to research does not carry with it a duty to invent”

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3 UWA v Gray [2008] FCA 498 para 11
4 Section 15 of the *Patents Act 1990* states that a patent can be granted as follows:

> "(1) Subject to this Act, a patent for an invention may only be granted to a person who:
> (a) is the inventor; or
> (b) would, on the grant of a patent for the invention, be entitled to have the patent assigned to the person; or
> (c) derives title to the invention from the inventor or a person mentioned in paragraph (b); or
> (d) is the legal representative of a deceased person mentioned in paragraph (a), (b) or (c)."

- Section 24 of the *Plant Breeder’s Rights Act 1994* states that the breeder may apply for a grant, and section 3 includes in the definition of “breeder”:
> “(c) if the variety was bred:
> (i) by a person in the course of performing duties or functions as a member or employee of a body (whether incorporate or unincorporate)."
In addition, French J found that the provisions in both UWA’s 1971 Patents Regulations and the 1996 Intellectual Property Regulations which purport “to vest intellectual property rights in it or interfere with the intellectual property generated by its academic staff, are not valid”. This is because the University of Western Australia Act 1911 only authorised UWA to make regulations relating to the control and management of its own property; it was not authorised to make regulations acquiring property from others or interfering with their rights.

Therefore the only way for UWA to acquire property rights from its academic staff, developed by them in the course of their research at UWA is by express provision in the contract of employment.

Additional difficulties in determining ownership are posed because the intellectual property was developed by a team of researchers, external funding, collaborative arrangements and extended periods of development.

French J also found that only one of the three lines of technologies that were subject to claim by UWA were developed during the course of employment with UWA. This finding was based on an assessment of the times at which the inventive concepts were created.

It is likely that UWA will appeal this decision as it will have implications for Universities and other employers of research staff throughout Australia.

5 Contracts

A contract is an agreement that the Courts will enforce. An agreement involves an exchange of obligations (or ‘bargain’) between two or more parties. In order for a valid contract to come into existence, a number of prerequisites must be satisfied. In particular, there must be:

- an offer;
- an acceptance of the offer (these two elements constitute the agreement);
- consideration that supports the promise; and
- intention for the parties to be legally bound by their agreement.

There are a number of legal rules that govern each of these elements, however, put simply: an offer can be defined as a clear statement of terms by which the person who
makes the offer intends to be bound. The acceptance must correspond to the offer and must not introduce any new terms (otherwise it may be construed as a counter-offer). Acceptance of the offer can be inferred by conduct ie, paying for the goods and taking delivery, Consideration is a difficult concept to define but can be described as the price of the promise ie something that is done (or not done) in return for the promise that has been made). The parties must intend to be legally bound by the contract. In most commercial dealings, this element is satisfied.

5.1 Terms of the Contract

As a general rule, once a contract is signed, the parties are bound by the terms and conditions of the contract. However, in many transactions, there is no written agreement signed by the parties. It is important to note that many contracts can be oral and most need not be in writing to be enforceable.

It is important that parties are aware at what point in time they enter into contractual arrangements. This may often be at the point of sale or purchase of goods (eg seed or other propagating material) and not when a written agreement is provided to them some time later. A party will only be bound by the terms and conditions of this later written contract if reasonable steps were taken to bring the terms and conditions to the party's attention at the time the oral agreement was made.

In some situations, parties may be bound by certain terms and conditions on the basis of a previous consistent course of dealings. This means that if parties have previously contracted on certain terms, then it is possible for those terms to be implied into new dealings even though a formal written contract, incorporating those terms, is never entered into.

Parties should pay particular attention to terms of the contract that govern:

- the parties' rights and obligations under the contract;
- the obligations that are to be performed (and by when);
- the payments and their timing;
- the duration of the contract;
- terms that stipulate a particular jurisdiction for disputes to be governed by (often referred to as choice of law clauses); and
- terms that govern how the contract may be terminated by the parties.
In a contract, parties may consent to giving up rights that might otherwise be given to them by law. For example, a farmer has a limited right to save seed under the PBR Act however, by entering into a contract with a supplier of seed or propagating material, they may be agreeing to give up those rights.

5.2 Bringing your Contract to an End

A contract may have been entered into by parties, but one of the parties may not have genuinely consented to the terms of the contract. For example, where a party enters into a contract because of a misrepresentation that has been made, the contract may be voidable and thus be brought to an end by the innocent party.

Normally a party is discharged from a contract when he or she has no further obligations to perform under the contract. A party may choose to terminate the contract where the other party has not performed his or her obligations and is therefore in breach of the contract. Many contracts have very detailed clauses dealing with termination of the contract by the parties and parties should take care to ensure that they are familiar with how they should proceed in the event of a breach. Wrongful termination may in itself amount to a breach of the contract (often referred to as repudiation of the contract).

5.3 Contracts and Intellectual Property Legislation

Intellectual Property legislation does not prescribe how the holder of rights will obtain a return on investment. There is often confusion about where statutory provisions end and contractual arrangements begin.

One of the key purposes of statutory Intellectual Property rights is to provide a mechanism for inventors to gain a commercial return on their investment, thereby stimulating investment in innovation and contributing to economic development.

Generally, in exchange for the exclusive right to exploit the new invention, the holder of the rights agrees to have the details of the invention published so that the public can have access to the invention.

The Intellectual Property legislation provides the framework for the inventor to then enter into contracts with those who want to use or sell the invention, giving them permission to do so under certain conditions which usually include a payment in the form of a royalty. If someone uses or sells the invention without that permission they are in breach of the Intellectual Property legislation and the inventor can take legal
action. The inventor can also add conditions that are outside the scope of the Intellectual Property legislation. Inventors should seek independent legal advice on the form of such contracts.

**Examples in the Agriculture Context**

**Example 1: End Point Royalties**

In some agricultural contracts, parties may agree to pay end point royalties on their harvested produce. The agreement to pay end point royalties provides an example of how a contract may give party rights that go beyond the scope of the Intellectual Property rights granted under PBR.

End point royalties are payments, made by the seller of harvested plant product, in accordance with the terms of a contract, to the "owner" or licensee of a plant variety. Payment is usually in terms of $x per volume of harvested material or subsequent products. The recipient of the end point royalty can be the breeder, distributor or licensee.

Many agricultural industries are promoting the concept of end-point royalties as a fairer system to assist breeders get a return on their investment while keeping the cost of propagating material at a reasonable level. This would help share the risk both of crop failure, variety failure and farmer saved seed giving a reasonable return and manageable costs for all parties.

In summary:

- Royalties are not covered by Intellectual Property legislation, but are a **contractual** mechanism that the holder of Intellectual Property rights can use to gain commercial benefit from the rights by allowing others to use the protected item under terms and conditions set out in the contract.

- An agreement by a grower (via contract) to pay **end point royalties** transfers the additional royalty cost from the original propagating material (eg seed or cutting) to the harvested material – as a result the grower does not pay if the crop fails and the breeder/licensee shares in this risk; on the other hand, the breeder/licensee still receives a royalty even if the grower uses seed that has been saved, as the farm saved seed exemption in the PBR Act only applies to the propagating material. This outcome **can only be achieved by contract** and is not covered by the rights, obligations and exemptions under the PBR Act, unless the grantee has
not been reasonably able to obtain a benefit from the sale of the propagating material.

**Example 2: Closed Loop Contracts**

A closed loop contract in the PBR context occurs where the owner or licensee of a protected variety sells the propagating material to the grower (probably in return for a royalty) and requires the grower to sell back the product (both food and/or propagating material, also possibly with a royalty) either to the owner/licensee or to a specified collection agency.

In many cases the grower is required to buy the variety exclusively (ie no other varieties of that commodity on the property), and to sell the product back exclusively to the provider of the genetic material. In this way the owner/licensee can control the vertical integration and marketing of the variety and its product.

There is debate as to whether this form of contract could be sufficient for a claim that reasonable quantities of the protected variety are not being made available to meet demand. Under Section 19 of the *Plant Breeder's Rights Act* it is the propagating material that must be made available and not the harvested product.

Closed loop contractual arrangements may attract the attention of the Australian Competition and Consumer Commission as the arrangements may be seen to be anti-competitive and thus in breach of the *Trade Practices Act*. Parties to these contracts need to seek legal advice before entering into them.

**Case study - Zee Sweet v Magnom Orchards (2003)**

One case that highlights the importance of understanding the terms of growers' contracts is *Zee Sweet v Magnom Orchards* (2003). In this case, Magnom was sued for breaching its Grower Agreement but claimed that the Agreement had been rescinded due to misrepresentations made by Zee Sweet prior to entry into the contract. The court dismissed the claim of misrepresentation and ordered that Magnom destroy all Zee Sweet plants as part of the remedy for their breach of the Grower's Agreement. The destruction of the plants was ordered because Magnom was to be restrained from dealing with or using the varieties and therefore the trees had no further role to play. This action was consistent with the relevant termination clause in the Grower Agreement.
This case highlights the importance of growers being aware of the conditions under which they grow protected varieties. The consequences of the breach were set out in the contract and were taken to be accepted at the time of entering into that contract.

**Example 3: Material Transfer Agreement in the PBR context**

One of the important forms of contract which can influence eligibility to apply for either patents or Plant Breeder’s Rights relates to activities prior to application which could jeopardise the “novel” or “new” status. Using PBR as an example, Section 43 of the Plant Breeder’s Rights Act 1994 states that a variety is only eligible if, amongst other things,:  

43(1)(e) the variety has not been exploited or has been only recently exploited.

This means that the variety cannot have been sold in Australia by or with the consent of the breeder more than one year before the date of lodging the PBR application in Australia, or sold overseas more than 4 years for most plants and 6 years for trees or vines.

Sell is defined in Section 3(1) of the PBR Act as:

sell includes letting on hire and exchanging by way of barter.

This definition was confirmed by the Full Federal Court in *Sun World v Registrar of Plant Breeder's Rights* FCA 1260 (12 October 1998)

In 2002 the PBR Act was amended to clarify the position in relation to trialling a variety before application. However, in such cases it is important that the owner of the variety has a contract or 'material transfer agreement' (MTA) with the person who is carrying out the:

- Field tests
- Laboratory trials
- Small-scale processing trials
- Tests or trials prescribed for the purpose of the sub section.

The Act also allows sale of unlabelled material for the sole purpose of final consumption if it is a by-product or surplus product from the creation of the variety, a multiplication of the variety or tests or trials listed above.
The material transfer agreement should ensure that the person who is undertaking the permitted actions does not in any way jeopardise the owner’s ability to apply for PBR at a later stage, and clearly sets out the purpose of the material transfer, the fact that it cannot be reproduced for any other purpose and at the end of the trials it must either be returned to the owners, totally destroyed or disposed of in a way permitted by the Act.

Example 4: Research Agreements - multi-party or single party agreements

Many research investors in Australia promote collaborative activity between research providers to ensure that work is not duplicated and they are investing in the best pool of researchers for the particular project. These agreements not only specify how the research will be carried and by whom, but they also deal with the intellectual property ownership and management as well as the commercialisation or adoption of the research results.

Many projects have more than two parties. In contractual terms this is dealt with in a number of ways, including:

- a multi-party agreement where all parties sign the same agreement (eg the CRC Agreements);
- an agreement between the investor (eg HAL or RDC) and the Principal Research organisation. The Principal Research organisation then sub contracts with each other Party.

There are risks and benefits with both these approaches.

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<th>Contract Type</th>
<th>Advantages</th>
<th>Disadvantages</th>
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| Multi-party   | - All Parties sign same agreement so no room for inconsistency  
- All Parties know what is happening to the Intellectual Property | - Takes longer to get agreement up front  
- More difficult to get sign off on amendments and reports |
| Two-party     | - Usually quicker to get agreement  
- Investor only has to deal with one Party  
- More suitable for low risk projects | - Potential for inconsistencies in sub-contracts  
- Potential for Intellectual Property to be dealt with without some project participants knowing  
- Project management more difficult as running several contracts instead of one |
Multi-Party contracts provide more certainty but are slower to manage. There is no set rule about which form of contract to use. It depends on the relationship that the participants wish to develop, the level of risk of having a number of contracts, and the value of the investment. Assessment should be done on a project-by-project basis.

**Case Study: CRCs**

Cooperative Research Centre (CRC) Agreements highlight some of the issues associated with multi-party agreements, both benefits and disadvantages.

CRCs were created by the Australian Government as a means of encouraging closer interaction between research providers, companies and the tertiary education sector. The idea was to have joint ventures between these groups to stimulate R&D in areas of value to industry and the economy. Traditionally the CRCs have been joint ventures between the Parties, cemented by a multi-party agreement with the Australian Government. Some of these joint ventures also formed a company to manage any Intellectual Property generated by the CRC, as a legal entity is required to enter into contracts, licence agreements etc and a single point was easier to manage than 6 to 20 separate entities in the joint venture.

CRCs generally invest about $25–$45m from the Australian Government over 7 years and at least an equivalent (but usually 2 to 3 times) as much from the participants. In the most recent round of new CRCs, conditions of establishment were that the CRC incorporate as a company limited by guarantee, rather than being an unincorporated joint venture. However, when it came time to signing the agreements, some State Government participants indicated that they could (would) not sign up to an incorporated structure. The Australian Government accepted this and has a complicated three-tier agreement system, with all three agreements being multi-party agreements.

The three agreements are:

- the Agreement between each of the Participants and the Australian Government which sets out the terms and conditions under which the Australian Government will provide its contribution;
- the Participants' Agreement which sets out the rights and obligations of the Parties and how the CRC will operate in relation to the Company, particularly when some participants will not be members of the Company; and
the Company Constitution required by Corporations Law which sets out the scope and Rules of operation of the company.

Templates for these agreements can be found at:


6 Branding

There are various ways in which horticultural products may be branded. First, there is a system of naming of plant varieties under the PBR Act. Protection is also available for brand names or 'quality assurance' marks under the Trade Marks Act and related consumer protection laws.

6.1 Naming a Plant Variety

Under the PBR Act, both the name and synonym of a plant variety are protected. A synonym is an additional name which the applicant may also use to commercialise the variety in Australia.

The Act imposes a number of limitations on plant variety names. In particular, the name must be a word or words (whether invented or not), to which may be added one or more letters or figures. Further, the name must not be:

- likely to deceive or cause confusion (including confusion with the name of another plant variety of the same plant class);
- contrary to law (for example by being a prohibited term under Australian legislation);
- scandalous or offensive;
- a trade mark that is registered, or whose registration is being sought, under the Trade Marks Act 1995 in respect of live plants, plant cells and/or plant tissues;
- the name of a natural person either living at the time of the application or who died within 10 years of the application (unless the person or their legal representative has given written consent); or
- the name of a corporation or other organisation (unless the corporation or other organisation has given its written consent).
In addition, the name must comply with the International Code of Nomenclature for Cultivated Plants.

Finally, if an application for PBR has previously been filed in a UPOV member country overseas, the name used in the first filing must be the official registered name in Australia. This ensures that the variety is known by the same name worldwide. The variety may be marketed under a different name in Australia, although the official name should be included in the synonym.

7 Trade Marks

While a variety cannot include the name of a trade mark, a variety can be marketed under, or in conjunction with, a trade mark.

Trade marks receive legal protection either through registration under the Trade Marks Act 1995 or as unregistered marks through other legal regimes, such as the law of ‘passing off’ or consumer protection legislation such as the Trade Practices Act 1974.

An application for the registration of a trade mark is made to the Trade Marks Office at Intellectual Property Australia. The application will initially be examined by the Registrar to ensure that it can be registered. If the Registrar decides to reject the application the applicant will be given an opportunity to make a case to have this decision reversed. Third parties will also have an opportunity to object to the registration once it is accepted by the Registrar.

There are a number of grounds on which the Registrar can reject an application for registration. Most importantly, an application will be rejected if the mark lacks 'distinctiveness'. Distinctiveness means that the mark must be able to do the job of distinguishing the applicant's goods and/or services from those of other traders. Marks that merely describe the goods and/or services in respect of which they are used (e.g. 'macadamia nuts', 'summerfruit') or a quality of those goods/services (eg, 'fresh', 'tasty'), or the geographical origin of the goods and services (eg, 'Riverina', 'Adelaide Plains') are common examples of marks that lack inherent distinctiveness. However, such marks can be registered if they acquire distinctiveness – this happens if the mark has been used to such an extent that it has come to be understood by consumers as an indication of the source of a particular trader's goods and/or services. The registered mark 'Sunraysia' (registered for fruit juice) is such an example.

Other grounds on which the registration of a mark may be rejected include:
• If the mark is misleading (in relation to the goods and services the subject of the application)
• If the mark is offensive or contrary to law (e.g., if use of the mark would infringe someone else's copyright); or
• If the mark is substantially identical with or deceptively similar to an earlier trade mark that has been applied for or is registered in respect of identical or similar goods.

Trade marks have to be renewed every ten years, although there is no limit to the number of times that a mark can be renewed. There are, however, certain ways in which the right to renew may be lost. Most importantly, a registered mark will be liable to be removed from the register if the owner has failed to use the mark in the preceding three years.

8 Quality Assurance and Certification Marks

Importantly, trade marks may also be used to ensure that particular products meet certain standards as to quality or health. A prime example is the 'Pink Lady' trade mark. This mark may be applied only to those Cripps Pink variety apples that meet certain standards as to colour and blush. The mark allows sellers to brand their higher-quality apples and sell them at a premium, while preventing sellers of generic Cripps Pink apples from describing their apples as 'Pink Lady'.

Regular trade marks can be used to serve this quality assurance function if they meet the normal TM criteria. More commonly, a highly specialised type of registered mark called the 'certification' mark is used. Certification marks are normally administered by an independent body or organisation that does not itself trade in the relevant goods or services. Instead, this body will give permission for approved traders to use the certification mark, provided that the trader's goods and/or services meet the standards set out by the organisation. Well-known certification marks include the 'Australia Fresh' logos and the Heart Foundation 'tick'. The process for obtaining a certification mark can be onerous because it involves an assessment by both Intellectual Property Australia and the Australian Competition and Consumer Commission (ACCC).
9 Geographical Indications

There is a growing awareness in Australia of the potential value in branding goods by reference to the geographical region in which they are produced. Other countries, particularly some European countries such as France and Italy, have a long tradition of giving special protection to agricultural producers from specific regions where it is considered that the goods produced in those regions have unique qualities. Australia does not share this tradition and, as a consequence, does not have a separate registration system for geographical indications.

However, geographical indications can be protected under a range of existing Australian laws. For example, names of regions can be registered as certification marks in Australia, meaning that only those producers from the a particular region whose goods are of the appropriate standard set out in the rules governing use of the certification mark may use the mark. In addition, the Trade Practices Act 1974 prohibits a corporation from engaging in misleading or deceptive conduct in trade or commerce and, more particularly, from making a false or misleading representation concerning the place of origin of goods. Similarly, traders in goods from a particular region that have collective goodwill in that geographical place name may bring an action in passing off against other traders that misrepresent that their goods come from, or are otherwise associated with, that region.
1 Who are the Investors?

Research projects generally have a number of investors. In Australian agri-business, these can include the employing organisation, companies, government agencies, universities, Cooperative Research Centres and Rural Research and Development Corporations (and their industry company equivalents). This latter group invest money on behalf of levy payers (usually growers and processors) and the Commonwealth government.

The investors are all looking for a return on their investment in the R&D. This return can take a number of forms which include:

- Dollars back to the investing organisation, either for investment in further research or for other use
- Improved commercial viability of an industry as a whole
- Benefits that are being sought by those investing in the investor eg growers who pay levies to an R&D Corporation, taxpayers or individual company shareholders
- Improved community benefits
- Improved reputation of the organisation (eg research providers are looking to improve their reputation internationally in the scientific/professional world)

2 What to take into Account when Seeking Investment?

In assessing a project for its potential return on investment, investors generally set certain criteria which the project should address, or problem that it should solve. In setting these criteria, they are guided by the outcomes that the organisation is seeking. These are usually set out in a Corporate/Strategic Plan, Annual Operating Plan and in the call for applications or tenders.

In addition, they are likely to have policies in relation to intellectual property and how it will be owned and managed.

3 Horticulture Australia Limited (HAL) as a Case Study

When seeking investment from HAL there are a number of documents that can help focus the project to the areas where HAL is seeking to obtain its return on investment. These include:
• HAL Strategic Business Plan 2005-2010 (extract at Attachment 3.1 in this Section)


• HAL Program Planning Calendar
  http://www.horticulture.com.au/working_hal/overview.asp

• HAL Annual priorities (Extract at Attachment 3.2):
  o Industry call – these are published on each industries web site and applications are received during the industry call period noted in the HAL Programming Calendar
  o General Call
    http://www.horticulture.com.au/working_hal/overview_priorities.asp#a_83
  o Rural research and development priorities provided by the Australian Government, where matching investment is included
    http://www.horticulture.com.au/working_hal/overview_priorities.asp#a_84

• HAL Application Form which asks for details about outcomes, including industry adoption and commercialisation

• HAL Policy on Commercialisation of IP (Draft at Attachment 3.3).

• HAL research, development and commercialisation agreement (Extract Attachment 3.4)

These documents give guidance as to the focus and outcomes that the investor is looking for. Throughout the documents, reference is made to “ensuring investments are translated into real commercial outcomes”; “the research in which HAL invests may be adopted in order to make new technologies available to stakeholders as quickly as cost-effectively as possible”. Maximising the uptake and benefits from its investment in R&D is the key focus. Therefore it must also be a key focus of applicants for investment funding.

4 When Investors have Different Policies and Priorities

Research investment in the primary industries sector in Australia is often done through a consortium of investors. If the key focus for these organisations is not compatible, then they should think again before jointly investing in a research project or program.
For example if a government research provider, a private company and HAL co-invest in a project, they might have different policies in relation to commercialisation of Intellectual Property:

- The government agency may wish to put the intellectual property into the public domain so that it is available to anyone who wants to use it
- The company may wish to have exclusive use of the intellectual property, at least for a limited period of time before others have access
- HAL may wish to make the intellectual property available only to levy payers

When preparing an application for investor support, it is important for researchers to understand their own organisation’s goals and policies, particularly in relation to adoption, commercialisation and intellectual property management.
Company strategies

The following are the strategic outcomes HAL aims to achieve over the next five year period. Success in achieving these outcomes is essential for the continuous improvement of individual industry and across-industry investments in R&D and marketing.

Know-how for Horticulture

1. Maximise the long term return on investment in industry programs
   1.1 Assist industry to develop better strategies and make more rigorous investment decisions on programs.
   1.2 Ensure industry investments are translated into real commercial outcomes.

2. Provide a powerful information, analysis and knowledge offer to stakeholders
   2.1 Develop our analytical resources and capability for horticulture.
   2.2 Utilise knowledge about the supply chain to the benefit of growers.

3. Establish clearly defined and understood partnerships with industry
   3.1 Within prescribed responsibilities agree role and performance expectations of HAL and partners clearly both internally and externally.
   3.2 Develop respectful complementary partnerships.

4. Enhance the reputation of Australian horticulture
   4.1 Sell and communicate Australian horticulture more effectively.
   4.2 Increase the resources applied to multi-industry activities.
   4.3 Position HAL as a strong, credible voice.

5. Be a capable organisation
   5.1 Foster a culture that supports HAL’s values.
   5.2 Business systems that guide and enhance our performance.
   5.3 Contemporary facilities and infrastructure to support continuous improvement.

Enhanced results – adopted faster

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Attachment 3.2: HAL Priorities 2008-09
http://www.horticulture.com.au/working_hal/overview_priorities.asp

Industry Priorities

The strategic and annual priorities for each of HAL’s member industries are published on the website and are available to be selected in the application system for Industry Call proposals during the Industry Call submission period each year.

General Call Priorities

The General Call seeks project proposals which address the following aims:

- Promote the key drivers of profitability amongst all horticultural growers of Australia.
- Increase the international competitiveness of Australian horticulture.
- Capture the synergies and foster greater collaboration between individual horticultural industries.
- Encourage growth and successful innovation in Australian horticulture by increasing the level of R&D, proof-of-concept and early-stage commercialisation work.
- Enhance the outcomes of commercially focused innovation thereby ensuring quantifiable commercial returns to individual enterprises and ultimately to the industry overall.
- Support the emergence and development of new horticultural industries.
- Provide support for regional-specific industry issues.

In particular proposals are sought in the 2008/2009 General Call that address the following:

**Meeting the requirements of consumers and key customers and enhancing the efficiency, responsiveness and product integrity of the supply chain**

Improve consumer liking for horticulture products through accurate identification of key satisfaction attributes (e.g. taste, visual appeal, feel, health benefits and knowledge of product). Enhance aspects of the supply chain in order to better deliver these key satisfaction attributes with greater consistency in both supply and quality to the consumer. Develop new products or create value added products, including differentiated horticultural products (such as functional foods or alternative uses for B grade and waste products), to meet future consumer demands.

**Ensuring consumers appreciate the health benefits of horticultural products**

Investigate, identify and verify the benefits of all horticultural products including nutrient content analysis, dietary and nutritional modeling, clinical and epidemiological studies into the benefits of fruit and vegetables on human health. Undertake bioprospecting, including screening for novel compounds and the development of production and extraction methodologies.

**Maintaining Australia’s market access and trade competitiveness by ensuring sound biosecurity strategies**

Preparedness and risk analysis including identification of key threats; improved detection of pests and disease; improved diagnostics and surveillance; pest and/or disease specific research; more effective eradication methods; industry and regional biosecurity plans and training; incursion management plans for key pests and diseases; response plans to reduce the impact of specific pests and disease incursion threats; strategies to prevent pests moving to new growing areas and R&D proposals that provide practical solutions for a number of horticultural industries and/or ensure their protection from incursion pests.

**Breaking down trade barriers for horticultural products**

Pre and postharvest market access initiatives to address the sanitary and phytosanitary issues required to gain access to overseas markets in line with or supportive of the R&D priorities identified in the current Industry Market Access R&D Strategic Plan (link).

**Effectively marketing horticultural products in export markets**

Export market intelligence gathering and consumer analysis to underpin new market development activities.

**Positioning horticulture as a good environmental steward**

Initiatives that improve or enhance the use of natural resources in horticulture. Issues that could be addressed include climate change, recycled water use, water, soil, environmental management, waste management programs and practice change.
Embracing new technologies to improve the efficiency and effectiveness throughout the supply chain

Early ‘proof-of-concept’ (validation) and R&D funding for improvements or development of new or transferable technologies relevant to the horticultural supply chain. Technologies can include software, hardware, production mechanisation, new technology-driven methodologies, monitoring and communication systems.

Improving industry’s access to skilled resources

Ensure an ongoing supply of skilled horticulture resources by encouraging and supporting professional development via scholarships including tertiary post-graduate degrees, grants, study tours and similar activities.

Rural R&D Priorities

All Industry and General Call R&D projects seeking Australian Government matching funds must address the Rural Research and Development Priorities.

In 1994 the Australian Government established a set of Rural R&D Priorities to balance new and ongoing R&D investment needs for the primary production sector, and to ensure R&D objectives of the Australian Government are met. The Australian Government reviewed the Priorities in 2007 in order to refresh the national understanding of current critical R&D investment needs and to better target agricultural, fisheries, forestry and food industry R&D efforts.

The new Rural R&D Priorities were developed in consultation with state and territory governments, industry, research funders and providers. A shared approach to priority setting among the players helps focus R&D efforts on issues of major importance. The Priorities will enable issues of common concern to be explored in a coordinated and cost effective way. These Priorities also complement the National Research Priorities.

New National Rural Research and Development Priorities

Productivity and Adding Value - Improve the productivity and profitability of existing industries and support the development of viable new industries.

Supply Chain and Markets - Better understand and respond to domestic and international market and consumer requirements and improve the flow of such information through the whole supply chain, including to consumers.

Natural Resource Management - Support effective management of Australia’s natural resources to ensure primary industries are both economically and environmentally sustainable.

Climate Variability and Climate Change - Build resilience to climate variability and adapt to and mitigate the effects of climate change.

Biosecurity - Protect Australia’s community, primary industries and environment from biosecurity threats.

Supporting the Rural Research and Development Priorities - Improve the skills to undertake research and apply its findings.

and

Promote the development of new and existing technologies.
Attachment 3.3: HAL Draft Policy on Commercialisation of IP

1. Policy Statement

Horticulture Australia Ltd will identify, protect and commercialise Intellectual Property arising from projects in which the Company has invested in order to provide maximum benefit to Australian horticulture.

2. Principles for HAL Management of Intellectual Property

- All HAL supported research will be managed with the aim of maximising the benefit to Australian horticulture. In some cases this will be achieved through commercialisation of research outcomes, in other cases research results will be made publicly available at nominal (i.e. cost recovery) or no charge.

- HAL aims to maximise the uptake and benefits flowing from its investment in horticulture research. The research in which HAL invests may be adopted in various ways in order to make new technologies available to stakeholders as quickly and as cost-effectively as possible. HAL recognises that commercialisation is only one means by which research outputs may be delivered to the horticulture industry, and that uptake and adoption may be maximised through means other than commercialisation. Commercialisation will be pursued when the commercial success and adoption of new technologies and products will benefit Australian horticulture and consumers, or when commercialisation provides a faster, more sustainable or more practical avenue for making new products, processes and services available to Australian horticulture.

- HAL serves the needs of Australian horticulture growers, and aims to improve their productivity, profitability and competitiveness in the global environment. HAL will seek opportunities to exploit the outputs of HAL-sponsored research in international markets, provided this maximises benefits to Australian horticulture and does not have an adverse effect on Australian growers.

- All research sponsored by HAL will be assessed for Intellectual Property (IP) content and commercialisation opportunities. Where commercialisable IP is deemed to exist, HAL will proceed on the basis that it will own a share of the IP. This share of IP ownership will be agreed between HAL and its research providers when projects are contracted, using a standard equity formula.

- When commercialisation is identified as the appropriate adoption mechanism prior to the execution of a Research, Development and Commercialisation (RDC) Agreement, a process to define a commercialisation plan and identify commercial partners will be included in the milestones of the RDC Agreement.

- HAL’s primary objective in commercialising research outcomes must remain the delivery of benefit to Australian horticulture, with the derivation of royalty revenue being a secondary concern. Royalties received by HAL will be distributed as required between HAL, the investing industry and/or the voluntary contributor. Since HAL is a not-for-profit organisation, any royalty revenue attributable to HAL will be reinvested in projects and activities that are beneficial to Australian horticulture. Funds derived from royalties which are attributable to industry levy
investment in research projects and held in the industry levy account are not eligible for further Commonwealth Government matching. Other distributions may be matched if they are subsequently supplied to HAL as voluntary contributions.

- HAL will ensure that IP developed in projects which it funds is well managed so that such IP can be properly commercialised. Because our core business is delivering industry benefits from research and marketing activities, HAL believes that the most appropriate and sustainable way to deliver research outcomes to industry is via a commercial partner. Recognising the complementary skills of our research and commercial partners, HAL will work in partnership with these partners to select a commercialisation path that provides maximum benefit to the Australian horticulture industry. Where HAL owns IP on behalf of an industry, HAL will consult with representatives from that industry regarding the commercialisation of high value IP.

- When IP is licensed for commercialisation, HAL will seek to retain the right to approve, amend or veto the commercialisation plans of our research and commercial partners. HAL will also seek to retain the right to withdraw licensing privileges if commercialisation expectations or commitments are not met. These rights will be reasonably used to ensure that commercialisation of research outcomes is advantageous to the Australian horticulture industry.

- From time to time, HAL will independently develop IP that contributes to the competitive position of the Company. HAL will protect such IP so as to allow commercial exploitation to the benefit of the Company.
2. GLOSSARY OF TERMS

2.1 DEFINITION OF TERMS

"Accounts" means the accounts to be maintained by the Provider for the Project;

"Agreement" means the research, development, commercialisation and funding agreement between the Company and the Provider in relation to the Project and includes:

(a) the Details of Agreement;
(b) the Conditions;
(c) the Schedules;
(d) the Requirements; and
(e) any annexures or attachments expressly incorporated into the Details of Agreement;


"Auditor" means a person who is:

(a) registered as an auditor under the Corporations Act 2001;
(b) a Commonwealth officer who exercises a delegation under the Financial Management and Accountability Act 1997 (Cth) concerning monies in relation to which certification is being made under the Agreement; or
(c) in the case of Government Entities, the chief financial officer of that entity;

"Background Intellectual Property" means:

(a) any Intellectual Property of a Party arising from a project specified in Schedule 2 of the Details of Agreement as a directly related project; and
(b) any other Intellectual Property developed outside the Project (including any such Intellectual Property owned by third parties) which is contributed to the Project by a Party, provided that such Intellectual Property has been notified in writing by the Party as Background Intellectual Property for the purposes of this Agreement and approved by [the Company] as such Background Intellectual Property.
"Business Day" means a day on which the Commonwealth Bank of Australia is open in Sydney, Australia;

"Capital Item" means an item of a durable nature purchased wholly or in part from Research Funds and includes land, buildings and improvements, yards, fencing, roads, irrigation facilities, plant and equipment;

"Commencement Date" means the date for commencement of the Project as set out in the Proposal;

"Commitment" means an amount owing by the Provider in respect of goods or services ordered or supplied prior to the Completion Date;

"Completion Date" means the date for completion of the Project as set out in the Proposal;

"Conditions" means these terms and conditions known as Version 10.1L, which form part of the Agreement;

"Confidential Information" means all know-how, financial information and other commercially valuable information in whatever form (including unpatented inventions, trade secrets, formulae, graphs, drawings, designs, biological materials, samples, devices, models and other materials of whatever description) which the Party claims is confidential to itself and over which it has full control and includes all other such information that may be in the possession of the Party's employees or management and may include Project Technology, but does not include information which:

(a) is already in the public domain;
(b) hereafter becomes part of the public domain otherwise than as the result of an unauthorised disclosure by the recipient Party or its representative;
(c) is or becomes available to the recipient Party from a third party lawfully in possession thereof and who has the lawful power to disclose such information to the recipient Party on a non-confidential basis;
(d) is rightfully known by the recipient Party (as shown by its written record) prior to the date of disclosure hereunder;

"Control", of a person, partnership, trust, joint venture, corporation or other entity ("Entity") means:

(a) the ability to cast or control the casting of more than 50% of the maximum number of votes that might be cast at any general meeting (or equivalent) of the Entity; or
(b) the holding of more than 50% of the issued ordinary share capital, the equity, or other ownership interest, in the Entity;

"Deed of Assignment" means an agreement between the Company and the Provider based on the draft template deed of assignment the form of which is set out in the Requirements;

"Depreciated Value" means the value of a Capital Item determined using a reasonable rate of depreciation as nominated by the Company from time to time or as otherwise agreed by the Parties;
"Details of Agreement" means the document of that name executed by the Parties for the conduct of the Project by the Provider which document forms part of the Agreement;

"Equity" means a Party’s share of the financial rewards arising from the Project and any directly related project set out in Schedule [2] of the Details of Agreement or from the Exploitation of Project Technology. This share is set out in Schedule 2 of the Details of Agreement;

"Exploit" means to use, make, hire, sell, make available to industry or any third party, demonstrate a product, process or information or otherwise dispose or make available to a third party, or to offer to make, sell, hire, make available to industry or any third party or to license or otherwise entitle any third party to do any of those things. "Exploitation" shall be similarly construed;

"Exploitation Plan" means the strategy proposed by the Provider in relation to the Exploitation of the Project Technology in accordance with Clause 6.7A;

"Final Report" means the final report required for the Project to be submitted by the Provider in respect of the Project in accordance with Clause 7.4;

“Financial Contribution" means a financial contribution made to the Company to be used as part of the Research Funds. The value of the Financial Contribution is listed in Schedule 1 of the Details of Agreement;

"Financial Contributor" means a third party who makes a Financial Contribution;

"Financial Year" means the period commencing on 1 July in each calendar year and finishing on 30 June in the next calendar year;

"Force Majeure Event" means any act, event or cause which is beyond the reasonable control of the Party or could not have reasonably been foreseen by the Party concerned, including war, insurrection, civil disturbances, blockades, riots, embargoes, epidemics, earthquakes, storms, lightning, floods, other adverse weather conditions, explosions, strikes and other labour conflict involving employees of the Party or its contractors or its contractors' employees, government action or inaction, breakdown of machinery or equipment (unless caused by failure to observe good maintenance and engineering practice) or shortages or unavailability of materials or equipment or any other cause which is not reasonably within the control of or could not have reasonably been foreseen by the Party claiming suspension;

"Government Entity" means an agency of the government of the Commonwealth of Australia or of an Australian state or territory or a Commonwealth authority or a Commonwealth company, within the meanings of section 7 and 34 of the Commonwealth Authorities and Companies Act 1997 (Cth) or a university funded by the Commonwealth;

"GST" means a tax on the supply of goods, services and other things, including any value-added tax, broad-based consumption tax or other similar tax introduced in Australia;

"Heads of Expenditure" means the following categories of expenses approved for expenditure of the Research Funds as specified in the Proposal:

(a) operating expenses; and
(b) expenditure on Capital Items;

"Intellectual Property Rights" means statutory, legal, equitable and other proprietary rights in respect of trade marks, patents, circuit layouts, copyrights, plant breeders rights, Confidential Information, know-how and all other intellectual property rights as defined in Article 2 of the Convention Establishing the World Intellectual Property Organisation of July 1967;

"Legal Costs" means all legal costs (on a solicitor and own client basis) and other costs in connection with defending any action or claim;

"Milestones" means the stages in the performance of the Project set out in the budget section of Schedule 1 of the Details of Agreement;

"Milestone Reports" means a report prepared by the Provider in respect of a Milestone, to be delivered by the Provider to the Company in accordance with Clause 7.4;

"Moral Rights" means rights of integrity of authorship, rights of attribution of authorship, rights not to have authorship falsely attributed, and rights of a similar nature conferred by statute, that exist, or may come to exist, anywhere in the world.

"Occupational Health and Safety Legislation" means all federal and state legislation to which the Provider is bound, which deals or is connected with or relates to, or concerns health and safety in the workplace including, without limitation, Occupational Health and Safety (Commonwealth Employment) Act 1991, Occupational Health and Safety Act 2000 (NSW), Shops and Industries Act 1962 (NSW), Occupational Health and Safety Act 1985 (Vic), Workplace Health and Safety Act 1995 (Qld), Occupational Health, Safety and Welfare Act 1986 (SA), Occupational Safety and Health Act 1984 (WA), Workers Rehabilitation and Compensation Act 1988 (Tas) and Work Health Act 1986 (NT);

"Party" means the Company or the Provider, as the context requires;

"Principal Investigator" means the person named as Project/Program Leader in the Proposal or any replacement of that person agreed to in writing by the Parties;

"Project" means the research and development project or projects or program described in the Proposal which has been approved by the Company and for which Research Funds are provided under the Agreement;

"Project Technology" means:

(a) all discoveries, inventions, improvements, plant varieties, genetic material, biological material, engineering or other processes, and innovations (whether or not appropriate subject matter for Intellectual Property Rights); and

(b) all reports (including any Milestone Reports and the Final Report) created by the Provider under the Agreement,

arising from the carrying out of the Project, together with, in each instance, the Intellectual Property Rights (if any) subsisting therein. Project Technology does not include Background Intellectual Property;
"Proposal" means the final version of the proposal submitted by the Provider to the Company and agreed by the Company, for the conduct of the Project. The Proposal is attached as Schedule 1 to the Details of Agreement;

"Requirements" means the requirements issued by the Company from time to time in relation to the Company’s policies, practices and procedures for services or funding of horticultural research and development projects as published on the Company’s website www.horticulture.com.au;

"Research Funds" means the research funds specified in the resource allocation section of Schedule 1 of the Details of Agreement which funds include the Financial Contribution and are provided by the Company in respect of a Project;

"Royalty" means the amount of revenue and other benefits due to the Company, as calculated using the percentage set out in Schedule 2 of the Details of Agreement, of the total revenues and other benefits arising from the Exploitation of the Project Technology;

"Schedules" means the schedules to the Details of Agreement and Schedule means any one of them;

"Security Interest" means the proportion of the Intellectual Property Rights and other rights subsisting in or arising from the Project Technology equal to the Company’s Equity as specified in Schedule 2 of the Details of Agreement or 1% if no Equity is specific in Schedule 2;

"Statement of Receipts and Expenditure" means the statement of receipts and expenditure for the Project being in the form set out in the Requirements;

"Statute" means any Act of any state or federal parliament of Australia by which the Parties are bound or any regulations made under or pursuant to such an Act;

"Termination Date" means the earlier of the Completion Date or the date the Agreement is lawfully terminated by either Party;

"University student" means any student in attendance at a university, whether that be part-time, full-time or by correspondence.

6 OWNERSHIP OF RESEARCH MATERIALS & OUTCOMES

6.1 OWNERSHIP OF PROJECT TECHNOLOGY

(a) Subject to Clause 6.1(b), all Project Technology in tangible form shall be owned on and from its creation by the Provider and the Company as tenants in common in the following proportions:

(i) the Company - the Security Interest; and
(ii) the Provider - the total less the Security Interest.

(b) Physical ownership of the Final Report (as distinct from ownership of the Project Technology and ownership of copyright in the Final Report) vests in the Company on and from its creation. The Company shall, upon written request from the
Provider, provide the Provider with one copy of the Final Report. Further copies of the Final Report may be provided by the Company at its sole discretion.

### 6.2 SECURITY INTEREST

(a) The Security Interest in the Project Technology shall vest in the Company on the creation of the Project Technology (except physical ownership of the Final Report which is dealt with in Clause 6.1(b)).

(b) The Company shall hold the Security Interest for the purpose of ensuring that the Provider does not deal with Project Technology otherwise than in accordance with the Conditions.

(c) Subject to Clause 6.8, the Company will assign its Security Interest in the Project Technology to the Provider in accordance with the Deed of Assignment, such assignment to take effect at a date agreed by the Parties as representing the date of material commencement of the implementation of the Exploitation Plan.

(d) Following assignment of the Security Interest in accordance with Clause 6.2(c), the Provider shall pay the Royalty to the Company in accordance with the terms set out in Schedule 2 of the Details of Agreement (or as otherwise agreed in writing by the Parties acting reasonably) together with any GST payable on the assignment.

(e) This Clause 6.2 and Schedule 2 of the Details of Agreement shall continue to apply and survive despite expiration or earlier termination of the Agreement.

### 6.3 NOT USED

### 6.4 INTELLECTUAL PROPERTY RIGHTS

(a) The Parties acknowledge and agree that the Intellectual Property Rights in all Project Technology (including Milestone Reports and the Final Reports) developed or created under the Agreement are owned by the Company and the Provider as tenants in common in accordance with Clause 6.1(a). Clauses 6.2 to 6.8 inclusive apply to such Intellectual Property Rights.

(b) The Agreement does not affect the ownership of any Background Intellectual Property.

(c) The Company and the Provider must, within one year after the Commencement Date:

(i) produce a register setting out all Background Intellectual Property which is used in the course of the Project and all Intellectual Property Rights arising from Project Technology. For all rights listed, the register will set out the owner of the rights and, where the rights are licensed, the licensee and licensor of those rights;

(ii) review and update the Background Intellectual Property register as necessary to reflect all changes from time to time in the Background Intellectual Property rights used in the course of the Project where:

(A) subject to Clause 6.4(c)(ii)(C), the Provider will make its Background Intellectual Property available for the purposes of the Project to the extent necessary to conduct the Project and allow successful Exploitation of Project Technology;
(B) ownership of the Provider’s Background Intellectual Property remains vested solely in the Provider; and

(C) if, at Exploitation, the Provider’s Background Intellectual Property has become part of the Project Technology, the Parties, acting reasonably, will agree on compensation for the Exploitation of the Provider’s Background Intellectual Property.

(d) Subject to Clause 6.4(c)(ii), each Party grants the other Party a permanent, royalty free, non-exclusive worldwide licence (including the right to sublicense to its contractors) to use, reproduce and adapt any Background Intellectual Property as required to enable the other Party to exercise its rights under this Agreement.

(e) Notwithstanding any assignment of the Security Interest by the Company in accordance with Clause 6.2(c) and subject to clause 7.3, the Provider grants, or shall procure the grant, to the Company of a permanent, irrevocable, exclusive, royalty-free worldwide licence (including a right to sub-license) to use, reproduce and Exploit all copyright rights in any Milestone Report, Final Report, or any other report created under the Agreement.

(f) Notwithstanding any assignment or licensing of the Project Technology under the Agreement, each Party will subject to clause 7.3 have at all times a perpetual, non-exclusive, royalty-free licence to use, copy, adapt, reproduce and modify the Project Technology for research and other non-commercial purposes and each Party will do all things necessary to enable this to occur.

(f) If requested by the Company to do so, the Provider shall at its own cost, bring into existence, sign, execute or otherwise deal with any document which may be necessary or desirable to give effect to this Clause 6.4.

(g) This Clause 6.4 shall continue to apply and survive despite expiration or earlier termination of the Agreement.

6.4A PROTECTION OF PROJECT TECHNOLOGY

(a) Subject to Clause 6.4A(c), the Provider will, have the responsibility for registering, prosecuting and maintaining the Intellectual Property Rights in respect of the Project Technology. The Provider must in performing its obligations under this Clause 6.4A:

(i) ensure that any Intellectual Property Rights protection strategy is in the best interests of the Australian horticultural industry;

(ii) consult with the Company in relation to the Intellectual Property Rights protection strategy to be adopted by the Provider in the discharge of the Provider’s obligations under this Clause and comply with all reasonable directions of the Company in relation to the discharge of those obligations; and

(iii) at all times keep the Company informed of the progress in relation to the registration, prosecution and maintenance of the Intellectual Property Rights in respect of the Project Technology.

(b) The Company hereby appoints the Provider as its attorney under power to do all things and execute all instruments necessary for the obtaining and maintaining of Intellectual Property Rights in respect of the Company’s interest in the Project Technology.
(c) Unless otherwise agreed by the Parties:

(i) “prior to the Completion Date or Termination Date”: all direct third
party costs (including but not limited to patent fees, patent attorney
costs and fees for the acquisition of plant breeder's rights) that have
been agreed by the Parties prior to being incurred and are related to
the protection of Intellectual Property Rights in the Project Technology
will be shared by the Parties in proportion to their Equity in the Project
Technology. The Company must pay its share of such costs within 30
Business Days after receipt of an invoice setting out the amounts
payable from the Provider;

(ii) “after the Completion Date or the Termination Date”: the Parties
will agree separately to Clause 6.4A(c)(i) on how the costs of
protection of Intellectual Property Rights related to Project
Technology will be met;

(iii) should a third party (eg a commercial partner) be found which meets
the costs of protecting Intellectual Property Rights arising from Project
Technology, the Parties agree that they will seek to recoup from such
third party the investment they have already made (if any) in
protecting Intellectual Property Rights arising from Project
Technology. Such recoupment will be disbursed between the Parties
in proportion to their Equity in the Project;

(iv) the obligation of the Parties in clause 6.4A(c)(i) will cease from the
time a third party is available to meet the costs of protecting
Intellectual Property Rights arising from Project Technology;

(v) all other costs incurred by a Party in relation to the protection of
Intellectual Property Rights (i.e., costs other than those directly
incurred with third parties) will be met by that Party.

(d) This Clause 6.4A shall continue to apply and survive despite expiration or earlier
termination of the Agreement.

6.5 NO DEALINGS

(a) Subject to the Agreement, neither Party may deal with, including transfer or
license, or purport to deal with, the whole or any part of its interest in Project
Technology without the prior written consent of the other Party.

(b) This Clause 6.5 shall continue to apply and survive despite expiration or earlier
termination of the Agreement.

6.6 EXPLOITATION OF PROJECT TECHNOLOGY

Subject to the provisions of Clauses 6.4(e) and 6.8, the Provider has the exclusive right
to exploit the Project Technology provided that:

(a) subject to Clause 6.6(b), the Project Technology is exploited only for the benefit
of the Australian horticultural industry;

(b) any Exploitation of the Project Technology to persons not directly involved in the
Australian horticultural industry has received the prior written approval of the
Company, such approval not to be unreasonably withheld;
(c) the Company is a party to any agreement entered into by the Provider for the Exploitation of the Project Technology prior to any assignment of the Security Interest in accordance with Clause 6.2(c) of the Conditions; and

(d) any agreement entered into by the Provider with a third party licensee in respect of the Exploitation of the Project Technology must include the following provisions:

(i) the grant of a licence by the Provider to the third party licensee to Exploit the Project Technology;

(ii) a release and indemnity in favour of the owner(s) of the Project Technology to cover all risks arising from the Exploitation of the Project Technology by the third party licensee; and

(iii) a requirement that the third party licensee takes out adequate, appropriate, valid and enforceable insurance policies to cover its obligation of indemnification of the owner(s) of the Project Technology.

(e) the Agreement has not been terminated for Provider default under clause 10.2, 10.3, 10.4 and 10.5.

(f) This Clause 6.6 shall continue to apply and survive despite expiration or earlier termination of the Agreement.

6.7 ROYALTY

(a) The Provider agrees to pay to the Company pursuant to the terms of Clause 6.2(d) the Royalty in respect of the Exploitation of the Project Technology calculated in accordance with Schedule 2 of the Details of Agreement.

(b) The Royalty shall be paid by the Provider to the Company within thirty days after receipt of the Royalty by the Provider. Each Royalty payment must be accompanied by a statement indicating the basis on which the Royalty has been calculated together with any other documentation in the possession or under the control of the Provider that relates to any amounts received by the Provider as a result of Exploitation of the Project Technology.

(c) This Clause 6.7 shall continue to apply and survive despite expiration or earlier termination of the Agreement.

6.7A EXPLOITATION PLAN

(a) The Provider shall provide the Company with a draft Exploitation Plan (which complies with the provisions of Clause 6) before the Provider enters into any agreement with a third party relating to the Exploitation of Project Technology.

(b) Within 20 Business Days after receipt of the Exploitation Plan, the Company shall notify the Provider in writing whether it approves (such approval not to be unreasonably withheld) with the terms of the Exploitation Plan. If the Company requires amendments to the Exploitation Plan and agreement on these amendments cannot be reached by the Parties within 20 Business Days after the Company notifies the Provider of the amendments, the Parties shall meet and seek to reach agreement on the terms of the Exploitation Plan and, if necessary, set a further timeframe within which final agreement of the Exploitation Plan must be reached.
(a) Subject to Clause 6.8, from the commencement date specified in the Exploitation Plan, the Provider shall comply with or complete the implementation of the Exploitation Plan.

(b) If:

(A) despite both Parties acting reasonably they cannot agree on the terms of the Exploitation Plan within the agreed timeframe described in clause 6.7A(b); or

(B) in the reasonable opinion of the Company, the Provider fails to commence and progress implementation of the Exploitation Plan or to comply with the Exploitation Plan,

then the provisions of Clause 6.8 shall apply.

(c) The Exploitation Plan shall not be amended or varied in any way without the prior written approval of the Company.

(f) This Clause 6.7A shall continue to apply and survive despite expiration or earlier termination of the Agreement.

6.8 EXPLOITATION BY THE COMPANY

(a) Subject to clause 10.8, where:

(i) Clause 6.7A(d) applies;

(ii) the Provider advises the Company that it does not intend to pursue the obtaining of Intellectual Property Rights for the Project Technology; or

(iii) the Provider advises the Company that it does not intend to Exploit the Project Technology,

the Company shall, within 20 Business Days after any of the circumstances above coming into effect, notify the Provider in writing of the Company's strategy for the Exploitation of the Project Technology including any fees or royalties to be paid to the Provider.

(b) If the Provider does not wish to participate in such strategy for Exploitation of Project Technology, the Provider must within 30 Business Days after receiving the Company's notification notify the Company that it does not wish to participate. A failure of the Provider to respond within the 30 Business Day period shall be deemed to be a notification that the Provider does not wish to participate. The Company will then, at the Company's cost, have the option at its sole discretion to proceed with the Company's strategy for the Exploitation of Project Technology.

(c) Where Clause 6.8(b) applies and the Company exercises its option by notice in writing to the Provider, the Provider shall promptly do all things necessary (including executing all necessary documents and obtaining all necessary consents and licences from any relevant third parties) to effect an assignment of all of the Provider's interests in the Project Technology (including all Intellectual Property Rights) and licence or assign all Background Intellectual Property rights necessary for the Exploitation of Project Technology) to the Company on the terms and conditions set. The Provider must also use its best endeavours to facilitate the Company proceeding with its strategy for Exploitation of Project Technology.
(d) Notwithstanding clause 6.8(c) the Provider will have at all times a perpetual, non-exclusive, royalty free right to use the Project Technology for education, research and other non-commercial purposes.

(e) This Clause 6.8 shall continue to apply and survive despite expiration or earlier termination of the Agreement.

6.9 INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS

(a) Each Party shall give the other Party notice of:

(i) any claim or allegation that the exercise of the rights under the Agreement constitutes an infringement of the rights of any third party; and

(ii) any third party's infringement or threatened infringement of any of the Intellectual Property Rights in respect of the Project Technology,

of which it becomes aware.

(b) The Parties will confer as to what steps, if any, are to be taken against any person infringing any Intellectual Property Rights referred to in clause 6.9(a). If only one Party decides to commence legal proceedings, it shall be solely responsible for Legal Costs, other costs, damages and expenses incurred therewith and will be solely entitled to any damages, profits or other compensation recovered by such proceedings. At the expense of the Party commencing proceedings, the other Party will furnish to it all necessary and reasonable assistance in relation to the proceedings.

(c) This Clause 6.9 shall continue to apply and survive despite expiration or earlier termination of the Agreement.
3

Commercialisation and Adoption Planning
1 Introduction

In the *How to Guide: Commercialisation Pathways for New Varieties*\(^6\) the authors outline the stages of the Commercialisation Cycle:

- Strategic Direction Setting
- Business Growth Model
- Business Planning

This provides an excellent outline of the full range of issues that need to be dealt with during the growth and development of a business and the introduction of new products and processes. Within the Business Planning component there are five elements:

- Systems and processes, which includes IP management
- Research and Development
- Production and Supply chain
- Market Development, and
- Finance and funding

This section addresses systems and processes for intellectual property management arising from the research and development component. This assumes that the Strategic Direction Setting and Business Growth Models have been developed by the investor organisations and they are now moving to invest in the R&D necessary to get the outcomes they have identified.

Ideally, this would also assume that the investors have identified a market for the outcomes of the R&D. However, other than in a broad strategic sense, this is often not the case in primary industries R&D. The HAL priorities identify areas where industry perceives a need for innovation, but this does not guarantee that there is an immediate path to market for the R&D results. There are a number of issues, including:

- Priorities are rarely based on rigorous market analysis
- The market may be too small for a commercial business to be interested in commercialising, or sufficient investment may not be available

\(^6\) HLB Mann Judd Consulting

The IP management and use policies of the investors may not align

The results may not be in a form that is useful to the end user (e.g., a grower may not be able to interpret the data from an experiment in a way that can be used in the business.

Researchers do not see it as their role to take stewardship of the project through to final uptake

End users are not directly investing in the project so do not have a direct influence over the outcomes

For whatever reason, the results of much good research are not incorporated into commercial business systems, even though that is the outcome sought by the investors.

The benefits from research can be increased with good planning, monitoring and review of the research from the project design stage. Regular monitoring, review and revision of the project is required as it progresses.

The Checklist that follows in Section 5 of this manual sets out a sequence of questions that form the basis for the planning of commercialisation/adoption planning and the associated intellectual property management.

### 2 Intellectual Property Management Plans: Maximising the Benefits

#### 2.1 Overview

Scientists often undertake research which is designed to lead to innovation and invention through the development of new knowledge. Most research is undertaken with a long (and in some cases short) term view that people will want to use the resulting intellectual output to further their commercial businesses. In this section intellectual property is used in its broadest sense to include outputs from R&D whether or not they meet the criteria for protectable intellectual property.

The owner of intellectual property needs to manage it so that the benefits can be maximised for the owner, for the investor and for the end user. This requires a structured process rather than an ad hoc approach. An Intellectual Property Management Plan provides such a structure.
The methodologies outlined here are indicative and brief. A much more detailed analysis will be needed at each step, depending on the actual facts of the project.

### 2.2 Intellectual Property Management Plan

Key elements in the Intellectual Property Management Plan include:

- Having an **Intellectual Property Policy** and **Strategy** to outline the principles for development and use of the Intellectual Property and to communicate these principles to relevant people with an interest or potential interest in the Intellectual Property.
- Understanding the **nature of Intellectual Property**.
- Being able to **identify Intellectual Property** and potential as it is developed.
- Understanding who the **end user** might be.
- Ensuring that there is **freedom to use** the Intellectual Property (freedom to operate and permission to operate).
- Undertaking an **Intellectual Property audit** and developing an **Intellectual Property inventory** so that Intellectual Property is recognised and managed.
- Keeping a **register** of all details relating to the Intellectual Property, including contractual arrangements for use, protection dates.
- Understanding how and when to use the Intellectual Property to obtain the best end results – i.e. having a **commercialisation or adoption strategy and plan** as part of the initial project plan, with provision for regular reviews.
- Reviewing Intellectual Property Management Plan at least annually.

Each element is examined briefly below. It should be noted that this is based on the assumption that the owner of the Intellectual Property is an organisation, but the same could apply to an individual.

### 2.3 Intellectual Property Policy

**Purpose**

The Organisation needs an Intellectual Property Policy to guide its decision making process. This is not always the same as a Commercialisation Policy, although the two may be integrated or at a minimum, closely linked.
Methodology

- Establish an Intellectual Property Taskforce to develop the Intellectual Property Policy, Strategies and Inventory procedures; this group should be representative of key users and developers of Intellectual Property
- Review organisation’s Intellectual Property Policy
- Review any other Intellectual Property Policies to which the Organisation must adhere (e.g., parent company, partner organisations, overarching Government Policy, Statutory requirements (e.g., Audit, CAC Act (Cth), or Company Law)
- Apply an Intellectual Property Policy Questionnaire (tailored for each Organisation’s needs) to identify the key policy elements that the organisation wants to apply to its Intellectual Property – this questionnaire should be answered by as wide a cross section of users and developers of Intellectual Property as possible
- Develop Standard Operating Procedures as Schedules to the Policy to cover areas such as:
  - Identification and Notification of potential Intellectual Property development
  - Monitoring and auditing Intellectual Property
  - Intellectual Property Protection
  - Intellectual Property Valuation
  - Prevention of Access and Confidentiality
  - Processes and authorisations for implementing strategies and making decisions in relation to protection of Intellectual Property
  - Ownership by the organisation
  - Checking for Freedom to Operate
  - Documentation Management
  - Joint ventures
  - Consultants
  - Employment Contracts and Agreements
  - Enforcement
  - Use of Intellectual Property owned by Others including Documentation
2.4 Intellectual Property Strategy

Purpose

This can be combined with the Intellectual Property Policy, but is a distinct element as it outlines the organisation’s approach to Intellectual Property and provides a decision tree to be applied to determine the best way of dealing with each Intellectual Property matter. As noted above, this is not the same as the Commercialisation Strategy, but if the organisation is likely to commercialise the Intellectual Property, this may influence the Strategic Approach to Intellectual Property.

Methodology

• Apply a Strategy Questionnaire tailored to the Organisation’s needs) to develop a Strategic Decision Tree – this will then be used to determine the most effective approach to each Intellectual Property asset identified in the Inventory

2.5 Understanding the Nature of Intellectual Property

Before it is possible to identify Intellectual Property, scientists, managers, end users and others involved in invention and innovation must understand the nature of Intellectual Property. No Policy or Strategy will be effective if those implementing it do not understand the nature of what they are dealing with. Intellectual Property Australia defines Intellectual Property as representing

the property of your mind or intellect. It can be an invention, trade mark, original design or the practical application of a good idea. In business terms, this means your proprietary knowledge - a key component of success in business today. It is often the edge which sets successful companies apart and as world markets become increasingly competitive, protecting your intellectual property becomes essential.

Chapter 1 of this Manual deals in more detail with the various kinds of Intellectual Property that may arise from research. It is important to understand the characteristics of each form of Intellectual Property to be able to properly identify it and manage it.

2.6 Identification of Intellectual Property

Any research will result in Intellectual Property whether it is copyright, confidential information or new knowledge. At the beginning of a project the researcher will have

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some idea of the type of Intellectual Property that may arise. To assist in this identification, it is possible to draw up a brief checklist and ask relevant questions once a project proposal or plan has been developed. This checklist should then be reapplied on a regular basis (e.g., each time a project report is due, or every time an experiment is completed, or at regular time intervals such as every 3 months).

If identification of Intellectual Property is not undertaken systematically, valuable assets can be missed and benefits from the work can be lost.

2.7 Understanding who the End User might be

To help maximise the benefits from Intellectual Property, it is important for researchers to think, during the project development stage and throughout the project, about the end user and what they might want from the project. Where possible, end users should be engaged in the project development and throughout the project as well so that outcomes can be tailored for easier commercialisation or adoption.

3 Freedom to Operate

3.1 Overview

Freedom to operate refers to the ability to practice or use subject matter protected by intellectual property without incurring liability for infringement. Whilst freedom to operate may potentially arise as an issue in relation to any form of intellectual property, it is most frequently encountered with patented inventions, plant varieties protected by plant breeder's rights and copyright.

3.2 Freedom to Operate and Patents

Contrary to widely-held views, the use of a patented invention in non-commercial settings is not exempt from patent infringement. In Australia, there is no formal research exemption in the Patents Act 1990, although there is case law from the 19th century which suggests that bona fide use of a patented invention with a view to improving upon it, or ascertaining whether an improvement can be made, does not constitute patent infringement. Confusion exists, however, as to the applicability of this authority to the current research environment, given its antiquity and the vastly different circumstances in which research is currently conducted. Whilst many patent owners have in the past been prepared to turn a blind eye to exploitation of patented inventions in universities and government research centres, there has been a reversal of this trend in recent years.
The issue of whether a formal research exemption should be introduced into Australian patent law was recently considered by the Australian Law Reform Commission. The Australian Law Reform Commission recommended that a formal research exemption be introduced and that this exemption should apply irrespective of whether the research occurs in a commercial context or might potentially have commercial applications. However, the Australian Law Reform Commission recommended that the proposed exemption should only have effect where research is carried out on the patented invention (for example, to identify further properties or functions of a patent gene) as opposed to the situation where research is carried out with the patented invention. This would mean that research which makes use of patented research tools (for example, the use of Agrobacterium in genetic transformation) will constitute patent infringement. In addition, the Advisory Council on Intellectual Property is currently undertaking a review of the options for introducing an experimental use exemption in Australia.

The approach advanced by the Australian Law Reform Commission accords with the approach to experimental use applied by a number of European countries, which similarly draw no distinction between commercial and non-commercial research. It is, however, at odds with the approach taken by courts in the United States (where no formal research exemption exists), which have construed the research exemption narrowly. In essence, use of an invention protected by a United States patent will only be exempted from infringement where that use is for amusement, to satisfy idle curiosity, or for strictly philosophical inquiry. Significantly, it has recently been held by a superior United States court in Madey v Duke University that that the activities of universities are inherently commercial, and, as such, use of patented inventions by academic scientists and researchers will not fall within the scope of this exception.

Before embarking upon a research project a freedom to operate or 'clearance' search should therefore be undertaken. A clearance search aims at locating patents that are currently in force to ascertain whether the research project is likely to infringe the claims of an existing patent. The search should not be limited to the location in which the research is undertaken, but should also include those countries in which any new technology resulting from the research is likely to be commercialised. Because patent applications are generally not published until approximately eighteen months after their priority date, clearance searches should also be carried out throughout the life of a research project.
3.3 Freedom to Operate and Plant Breeder's Rights

In contrast to the patent system, the Plant Breeder's Rights Act 1994 contains a number of express exemptions to the exclusive rights enjoyed by owners of new plant varieties which facilitate freedom to operate. In particular, the Plant Breeder's Rights Act provides that acts done in relation to a protected variety for private and non-commercial purposes, experimental purposes, or for the purpose of breeding other plant varieties, do not constitute an infringement of PBR in a protected variety.

However, freedom to operate may nevertheless be hindered where the development of a new variety requires repeated use of a protected variety (for example, in hybridisation) or where a new variety is essentially derived from a protected variety. In both instances, the owner of the initial protected variety may apply to the Plant Breeder's Rights Office for a declaration of dependency or essential derivation, which, if made, may prevent the new variety from being commercialised.

Freedom to operate may also be obstructed where research involving a protected variety is concurrently protected by patent and PBR (for example, a genetically-modified plant containing a patented gene). Where this occurs, research involving use of the protected variety may give rise to liability for patent infringement.

In addition, freedom to operate may also be restricted by the terms of licence for use or propagation of a plant variety, whether protected by PBR or not. It is common, for example, for the breeders' exemption under the Plant Breeder's Rights Act to be excluded by the terms of a licence for a protected variety. In those circumstances, the terms of the licence agreement will over-ride the exceptions to infringement contained in the Plant Breeder's Rights Act.

3.4 Freedom to Operate and Permission to Operate

Freedom to operate should be distinguished from 'permission to operate'. Freedom to operate from the point of view of intellectual property rights does not necessarily clear the way to develop and commercialise a new technology. There may be a range of government regulations, industry guidelines and ethical standards with which to comply before permission to operate is granted. For example, approval from the Office of the Gene Technology Regulator may be required before a genetically-modified plant can be commercialised. A clearance search should therefore include an assessment of where permission to operate may be required.
4 Intellectual Property Inventory

Purpose

The purpose of an Intellectual Property Inventory is to identify the Intellectual Property assets that the Agency “owns” or is licensed to use. This provides the base-line information in terms of:

- Nature of the Intellectual Property
- Actual or potential value (the Intellectual Property Policy should set out the Organisation’s approach to Intellectual Property valuation)
- Ownership (eg agency, employee, consultant, joint venture, investor)
- If not owned, then licence conditions
- Security over Intellectual Property (eg is it mortgaged in any way)
- Current status (eg stage of development, existing protection, licence agreements, obligations to owners of component Intellectual Property, status of substantiation documentation)
- Purpose of the Intellectual Property (eg a new plant variety for specific product/market development, publication for wide distribution, development of specific purpose software)
- Risk assessment of Intellectual Property

From this information the Organisation can then develop its strategy for use of the Intellectual Property, using the Strategic Decision Tree in the Intellectual Property Strategy. This may include putting it into the public domain, commercialising, keeping as raw material for further developments, making available to selected clients under licence etc.

Methodology

The development of the Inventory can occur in a number of stages depending on resources and initial risk assessment:

Stage 1 – Application of risk/value matrix; this helps identify prima facie Intellectual Property with a high value or high risk in the following categories:

- Existing Intellectual Property currently owned and protected
• Existing Intellectual Property currently licensed from others for use by the organisation
• Current projects with potential Intellectual Property of high value or high risk
• Existing Intellectual Property being used by the Organisation which could belong to others but for which there is no licence or agreement
• Intellectual Property being used or developed by the Organisation where the ownership is unclear

The process involves a **rapid analysis** of all projects being undertaken by the organisation, including standard business operations, software use and R&D. An Intellectual Property identification and risk analysis questionnaire (tailored for Organisation’s needs) is applied by Managers to their area. This questionnaire seeks to identify key areas or projects where Intellectual Property is:

• being developed
• stored or maintained, or
• used

It then seeks to identify the type of Intellectual Property either present or potential eg

• Copyright (publications, documents, software)
• Patents
• Plant Breeder’s Rights
• Trademark
• Design
• Geographic
• Confidential information
• Moral Rights

**Stage 2 – Prepare Full Inventory of Intellectual Property identified in Stage 1**

**Stage 3 – Application of Rapid Risk/Value Matrix for Medium risk/value Intellectual Property using the same categories as Stage 1**

• Prepare Full Inventory of Intellectual Property in Stage 3

**Stage 4 – Identification and Inventory of remaining Intellectual Property**

**Stage 5 – External Audit of Inventory**
Note:

- if the full inventory is not to be completed in a continuous time-frame, Stage 5 can be inserted at any point in the process
- Value may not mean monetary value
- All but Stage 5 can be undertaken by the Organisation’s Management after a short training session with the independent auditor

5 Intellectual Property Register

Once the inventory has been finalised, it will need to be incorporated into an Intellectual Property Register. This can be tailored to suit the Agency needs, but it should be widely accessible (read-only) and the Agency will need a Standard Operating Procedure for keeping it updated. This should include a component of any new project approval which will not allow funds to flow or milestone sign-off unless an update notation on that project has been made to the Intellectual Property Register.

Items to include on the Register include:

- Description of Intellectual Property
- Location
- Project status
- Ownership – including substantiation documentation and its location
- Protection Type and Status (eg patent application accepted dd/mm/yy)
- Contracts/agreements signed with contractors, employees, consultants etc, and location
- Licences – both as Licensee and Licensor
- Enforcement history
- Royalties received and dates

6 Commercialisation/Adoption Strategies and Plans

Purpose

To identify the best way to have the results of the research taken up by the next user in the chain.
Many investors in R&D in Australia want to see the research results being adopted by commercial businesses to help improve Australia’s competitiveness locally and overseas.

**Methodology**

The way the Intellectual Property will be commercialised or adopted depends on the Intellectual Property Policy and strategy of the owner and the type of Intellectual Property that has been developed. Although this section is located at the end of the Intellectual Property Management Planning Chapter, this process begins at the project development phase.

The key steps in developing the plan are linked to the project stages:

**Project development stage**

- Apply the Intellectual Property identification checklist to assist in identifying:
  - the types of Intellectual Property likely to come from the project
  - The potential end users
  - Intellectual Property protection policy of the Intellectual Property owner/investors or in any project agreement
  - Freedom to operate
  - Any third parties already engaged in the project
  - Any existing Intellectual Property belonging to other parties that may influence the commercialisation or adoption strategy for this project

- Where possible or appropriate, engage with potential end users to ensure the project is likely to be useful; gain assistance with project design to improve usability of outcomes

- Identify the best possible commercialisation or adoption pathway with the current knowledge available and develop a draft implementation plan and budget for implementation, including protection of any Intellectual Property that has been identified as requiring protection (including confidential information)

**During Project**

- At each milestone, reassess the draft commercialisation/implementation plan and revise as necessary
• Take relevant actions as required, including further developing the mechanisms for commercialisation and/or adoption using innovative techniques where applicable e.g. if the Intellectual Property is to be public domain, determine from as early a stage as possible how to keep the end users engaged and interested to adopt the final outcomes – accept that a report is not enough in most cases and an active adoption strategy is required

At the end of the project

• If the plan has been implemented progressively, at this stage there should be actively interested end users, or a commercialisation partner ready to sign a commercialisation/licence agreement at least to take a pilot development
• If not, assess whether this project should be taken any further or not – use a check list of questions to assist with this process
• If it is to be taken further, review the plan to determine the next steps
• Always have a go/no go review at regular intervals

Review and Feedback

All the above elements should be developed in consultation with key users in the agency and externally, and referred back for comment and review on a regular basis throughout the Intellectual Property management process.

The Intellectual Property Management Plan (and all its elements) should be reviewed at regular intervals, the frequency depending on the type of research being undertaken and the speed results are being obtained. Annual review should be a minimum. As part of that review questions should be asked to ensure that all the Intellectual Property in the inventory is being managed to maximum advantage.
Planning Checklist
Planning Checklist

The Purpose of this Checklist is to provide an internal worksheet to assist in identifying and managing intellectual property as a key element in developing a commercialisation and/or adoption plan. It provides a systematic approach for identifying intellectual property related commercialisation/adoption issues that need analysis before an investment or commercialisation/adoption decision is made.

It should be completed as part of the design phase of a research project and reviewed as the project progresses. In the early stages of project design it may be possible to complete a shorter version of this checklist, but to fully understand the path to adoption and all the elements of IP management, the longer version should be completed as soon as possible after the commencement of a project.

For practice, use the Case Study in the next section. Fill in the Check List, based on the information provided and identify the information that is missing or could be improved. This check list does not follow the format of the HAL application form as it is designed to allow people to get a good understanding of why they are doing the project and who is going to use the outcomes, before dealing with the application form. To assist in applying, relevant HAL application headings are provided in the right-hand column, but this is only a guide and you should use your own judgement.

SECTION 1 - PROJECT INFORMATION

<table>
<thead>
<tr>
<th>Project ID</th>
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<tr>
<td>Project Leader</td>
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<td>Research organisation</td>
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<tr>
<td>Other investors</td>
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</tbody>
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SECTION 2 - WHY ARE WE DOING THIS PROJECT?

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<tr>
<th>Has a need been identified?</th>
<th>Yes/No</th>
<th>HAL Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>If Yes, by whom:</td>
<td></td>
<td>Summary Background</td>
</tr>
<tr>
<td>Was the need identified by market research?</td>
<td></td>
<td>Industry Adoption</td>
</tr>
<tr>
<td>If no, will this occur?</td>
<td>When:</td>
<td>Commercialisation</td>
</tr>
<tr>
<td>Is there another basis for doing this project?</td>
<td>Specify:</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 3 - PROJECT OUTCOMES

<table>
<thead>
<tr>
<th>Are the proposed project outcomes</th>
<th>Yes/No</th>
<th>HAL Form</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Outputs</td>
</tr>
<tr>
<td>clearly defined and measurable?</td>
<td></td>
<td>Outcomes Industry Adoption Commercialisation</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>---</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Do the proposed project outcomes reflect investor:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Strategic outcomes and targets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Annual priorities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Intellectual property policy(ies)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Need analysis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Who will use the project outcomes?</td>
<td>Specify:</td>
<td></td>
</tr>
<tr>
<td>How will they use them?</td>
<td>Specify</td>
<td></td>
</tr>
</tbody>
</table>

**INTELLECTUAL PROPERTY ISSUES RELEVANT TO PROJECT**

**SECTION 4 - FREEDOM TO OPERATE AND BACKGROUND IP**

<table>
<thead>
<tr>
<th>Is any existing IP needed for Project?</th>
<th>(answer “No” if what is being claimed is better defined as technical knowledge)</th>
<th>Background Industry Adoption Commercialisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the form of the Background and/or Third Party IP:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• New processes/systems</td>
<td>Insert brief description</td>
<td></td>
</tr>
<tr>
<td>• New products</td>
<td>Insert brief description</td>
<td></td>
</tr>
<tr>
<td>• New data sets</td>
<td>Insert brief description</td>
<td></td>
</tr>
<tr>
<td>• New plant varieties</td>
<td>Insert brief description</td>
<td></td>
</tr>
<tr>
<td>• New software</td>
<td>Insert brief description</td>
<td></td>
</tr>
<tr>
<td>• New documents</td>
<td>Insert brief description</td>
<td></td>
</tr>
<tr>
<td>• Other (specify eg trade secrets):</td>
<td>Insert brief description</td>
<td></td>
</tr>
</tbody>
</table>

**Student IP – is existing student IP being brought into the Project?**

<table>
<thead>
<tr>
<th>If “yes” treat as Background or third party IP</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the Background and/or Third Party IP protected?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>If it is protected, how is it protected (eg patent, PBR, copyright etc)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>If protected, who owns it?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does the Background IP need to be valued for Project or equity purposes?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What is the value of the Background IP?</td>
<td>This is a market value. *(Note: this is not the amount invested to date). If no market value, then parties may agree to something, but</td>
<td></td>
</tr>
<tr>
<td><strong>SECTION 4: PLANNING CHECKLIST</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Freedom to operate</strong></td>
<td>Is there any IP, owned by someone else, needed for this project; if so are licences in place – documents must be available?</td>
<td></td>
</tr>
<tr>
<td><strong>Are there any existing or potential 3rd party interests in this project?</strong></td>
<td>Eg contracts or other licence agreements not yet disclosed</td>
<td></td>
</tr>
<tr>
<td><strong>Approvals</strong></td>
<td>Is there sufficient information to indicate that all necessary approvals have been obtained to undertake this project (eg from OGTR, AQIS and other regulatory bodies)?</td>
<td></td>
</tr>
<tr>
<td><strong>Are there others who are doing similar work (if not defined, seek more info)?</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Have due diligence searches been undertaken to check above matters?</strong></td>
<td>If yes, specify</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>SECTION 5 - PROJECT IP</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IP Identification</strong> What forms of IP are envisaged?</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Patent</td>
</tr>
<tr>
<td>PBR</td>
</tr>
<tr>
<td>TM; Certified TM</td>
</tr>
<tr>
<td>Design</td>
</tr>
<tr>
<td>Copyright</td>
</tr>
<tr>
<td>Software</td>
</tr>
<tr>
<td>Confidential Information</td>
</tr>
<tr>
<td>Trade secret</td>
</tr>
<tr>
<td>Student IP – are there students involved?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>SECTION 6 - MANAGEMENT OF IP</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IP ownership</strong></td>
</tr>
<tr>
<td>Who will own IP?</td>
</tr>
<tr>
<td>If joint owners, will ownership be in proportion to equity shares?</td>
</tr>
<tr>
<td>Will there be any abnormal risks or cost implications to this?</td>
</tr>
<tr>
<td>If a party does not own IP, can it effectively manage use of IP by others through:</td>
</tr>
<tr>
<td>contract clauses</td>
</tr>
<tr>
<td>non-exclusive</td>
</tr>
<tr>
<td>What is total investment by each Party?</td>
</tr>
<tr>
<td>----------------------------------------</td>
</tr>
<tr>
<td>• in this project $</td>
</tr>
<tr>
<td>• in this technology to date (over last 6 years) $</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Is IP protection:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• necessary</td>
<td></td>
</tr>
<tr>
<td>• desirable</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What countries should IP protection be taken out and when?</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Should the IP be in the public domain for most cost-effective and timely uptake?</th>
<th>If so, why:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Who meets the costs of obtaining, maintaining and enforcing the IP protection?</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Investor</td>
<td></td>
</tr>
<tr>
<td>• Research provider</td>
<td></td>
</tr>
<tr>
<td>• 3rd party (please identify)</td>
<td>*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How will protection be achieved and paid for?</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Are these measures adequate?</th>
<th>If not, why not</th>
</tr>
</thead>
</table>

**Confidentiality** – Are systems in place to ensure information is kept confidential?

<table>
<thead>
<tr>
<th>Reports and Documents – Are these treated differently from other Project IP in terms of ownership?</th>
</tr>
</thead>
</table>

### SECTION 8 - ADOPTION PATHWAY

<table>
<thead>
<tr>
<th>Who needs the outcomes of project and why?</th>
<th>Maximising Benefits for whom?</th>
<th>Yes/no</th>
<th>HAL Form</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Background Method</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Industry Adoption</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Commercialisation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Budget</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Milestones</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What is the estimated potential value from this investment when this project finishes to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Investor(s) $</td>
</tr>
<tr>
<td>• the Aust industry $</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>In what form do the outcomes need to be, to be useful?</th>
<th></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Is there a feasible and effective adoption pathway that makes results available in a usable form?</th>
<th></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>How is the adoption to occur if not commercialisation? (suited to project outcomes where there is data, information, useful life &lt; 5 years, high cost/benefit ratio, lower value)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>early adopters involved in project</th>
</tr>
</thead>
</table>
### Section 4: Planning Checklist

**on-site demonstrations**

**packaging of results in usable form and proactive uptake methods**

- Other

Is commercialisation appropriate? (this is most suited to project outcomes that are products or processes, have high value, useful life > 5 years)

If yes then answer below:

- have potential proactive partners been identified

- are partners to be involved in the project from the beginning

- Are current investors to be involved in the commercialisation

- What is that role of
  - current investors/IP owners
  - licensee (under defined conditions and performance indicators such as time, cost, market interest)

- what is the cost of participation vs the benefits for each of current investors

### SECTION 9 - CONTRACTS

<table>
<thead>
<tr>
<th>Has all the IP information been obtained and checked (including existing registration, licences etc)?</th>
<th>Yes/no</th>
<th>HAL Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have all Parties and licensees/licensors agreed to the IP Terms?</td>
<td></td>
<td>Industry Adoption</td>
</tr>
<tr>
<td>Are any separate IP agreements required from others involved with the technology but not a party to this Project agreement – if “Yes” specify</td>
<td></td>
<td>Commercialisation</td>
</tr>
<tr>
<td>Is there certainty of ownership of student IP?</td>
<td></td>
<td>Budget</td>
</tr>
<tr>
<td>Do Parties have a signed document from the student and their tertiary institution confirming student ownership?</td>
<td></td>
<td>Milestones</td>
</tr>
<tr>
<td>Based on the answers in this Section, is a Multi-Party agreement needed?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have all persons participating in the Project signed the IP Operating Agreement?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Principles?**

Are all 3rd party interests in the IP recognised and properly dealt with - specify

Are there appropriate clauses to ensure key investor has the capacity to drive and/or manage the direction of the project outcomes?

Who has first right of refusal to any Project IP if other Parties withdraw?

Are there sufficient clauses to ensure that investors can still retain share of the IP even if it ceases to invest in the Project?

---

**SECTION 10 - REVENUE SHARING**

Which Parties want to share in any revenue arising from exploitation of IP?

<table>
<thead>
<tr>
<th>Method</th>
<th>Industry Adoption</th>
<th>Commercialisation</th>
<th>Budget</th>
</tr>
</thead>
</table>

In what proportion? Default position is "equity share"

---

**SECTION 11 - IP REGISTER**

Has the project been entered on the IP Register?

<table>
<thead>
<tr>
<th>Insert date of entry:</th>
<th>Date of entry:</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ /</td>
<td>HAL</td>
</tr>
</tbody>
</table>

---

**SECTION 12 - IP TRAINING FOR PROJECT TEAM**

Is there a proposal to train research staff adequately in IP management and commercialisation/adoption planning?

<table>
<thead>
<tr>
<th>Method</th>
<th>Budget</th>
<th></th>
</tr>
</thead>
</table>

---

**PROJECT MONITOR AND REVIEW**

**PROJECT REPORTS**

Does the Report identify any new IP?

If new IP is identified is a revised commercialisation/adoption plan included?

Is more information needed about IP or adoption/commercialisation?

Is a review of IP management required?

Does the report identify any new students or other new people on the project?

If yes, have they signed the IP Operating Principles

---

**COLLABORATOR NOTIFICATION**

Who do researchers and collaborators notify if potential IP is identified as the project progresses?

How and when should this be done (specify)?

Is there provision for notification and signature of the IP Principles if a new person joins the project?
**ORGANISATION EXITING A PROJECT**

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have the ongoing IP obligations of all parties been entered on the IP Register (record the date of entry)?</td>
<td></td>
</tr>
<tr>
<td>Does key investor want to “buy out” of ongoing commercialisation arrangements?</td>
<td></td>
</tr>
<tr>
<td>What conditions are in place against other parties using Confidential Information?</td>
<td></td>
</tr>
<tr>
<td>Does key investor have the right for input to any on-going commercialisation agreements?</td>
<td></td>
</tr>
<tr>
<td>Does key investor want the right of first refusal for any ongoing commercialisation, adoption, assignment or ownership change?</td>
<td></td>
</tr>
</tbody>
</table>

**RISK MANAGEMENT**

**RISK LEVEL**

<table>
<thead>
<tr>
<th>Research Provider</th>
<th>For this project, what level of risk is each investor able to accept in relation to:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Freedom to operate – level of certainty required H/M/L</td>
</tr>
<tr>
<td></td>
<td>- non-performance of the research provider H/M/L</td>
</tr>
<tr>
<td>Use of IP owned by others</td>
<td>Is IP owned by others needed:</td>
</tr>
<tr>
<td></td>
<td>- patentable products or processes Yes/No</td>
</tr>
<tr>
<td></td>
<td>- plant varieties Yes/No</td>
</tr>
<tr>
<td></td>
<td>- reports, documents, data etc Yes/No</td>
</tr>
<tr>
<td></td>
<td>- photographs Yes/No</td>
</tr>
<tr>
<td></td>
<td>- software Yes/No</td>
</tr>
<tr>
<td></td>
<td>- other (specify)</td>
</tr>
<tr>
<td>Collaborator IP Policies</td>
<td>Do investors have IP Policies which conflict with (if yes, document differences as an attachment to this questionnaire if readily available; flags there may be a need to negotiate), eg:</td>
</tr>
<tr>
<td></td>
<td>- Commonwealth government Yes/No</td>
</tr>
<tr>
<td></td>
<td>- CRC Yes/No</td>
</tr>
<tr>
<td></td>
<td>- State agencies Yes/No</td>
</tr>
<tr>
<td></td>
<td>- CSIRO Yes/No</td>
</tr>
<tr>
<td></td>
<td>- Universities (specify) – include student IP Yes/No</td>
</tr>
<tr>
<td></td>
<td>- Other (provide details) Yes/No</td>
</tr>
<tr>
<td>Student IP</td>
<td>Is student IP treated differently from other project IP? Yes/No</td>
</tr>
<tr>
<td>Capacity to manage outcomes</td>
<td>Does key investor have capacity to manage outcomes during and after the project, in terms of:</td>
</tr>
<tr>
<td></td>
<td>- maximising utility of the results to industry Yes/No</td>
</tr>
<tr>
<td></td>
<td>- maximising utility of results to ORGANISATION Yes/No</td>
</tr>
<tr>
<td></td>
<td>- minimising potential for competitors to exploit the outcomes Yes/No</td>
</tr>
<tr>
<td>Indemnity</td>
<td>Are the indemnity provisions satisfactory to investors? Yes/No</td>
</tr>
<tr>
<td>Insurance</td>
<td>Are the insurance requirements for research collaborators and 3rd parties acceptable to investors? Yes/No</td>
</tr>
<tr>
<td>Category</td>
<td>Question</td>
</tr>
<tr>
<td>----------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Financial</td>
<td>Are the parties likely to remain solvent for the life of the project?</td>
</tr>
<tr>
<td>Legal</td>
<td>What is the risk of investors being sued (high, medium, low)??</td>
</tr>
<tr>
<td></td>
<td>Are the insurance requirements (being sought by other parties) for ORGANISATION acceptable to ORGANISATION?</td>
</tr>
</tbody>
</table>
### Rank Key risk areas for this project using the risk matrix below:

<table>
<thead>
<tr>
<th>Risk</th>
<th>Rank 1-10 (1=low) (X)</th>
<th>Weighting of risk 1-10 (1=low) – score varies with project (Y)</th>
<th>Risk score for project (XxY)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ownership</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potential Project IP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Background IP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other party IP Policy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organisational Management</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others developing similar IP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legal risks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial risks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risks to reputation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (specify)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Score</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Possible score (10x10x number of risks listed above)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>% of total number possible (Transfer to summary page)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Score (see Matrix below)**

- Negligible (> 0 <2)
- Low (= >2 <5)
- Medium (= >5 <8)
- High (= >8)

**Brief summary of reasons for risk assessment** (eg risk is high as the likelihood of *water allocation being reduced* is ‘likely’ and unless steps are taken, the consequences would be major)
### ORGANISATION RISK ESTIMATE MATRIX

<table>
<thead>
<tr>
<th>Likelihood</th>
<th>Consequence</th>
<th>Risk Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negligible</td>
<td>Marginal</td>
<td>Negligible</td>
</tr>
<tr>
<td>Negligible</td>
<td>Minor</td>
<td>Low</td>
</tr>
<tr>
<td>Negligible</td>
<td>Intermediate</td>
<td>Medium</td>
</tr>
<tr>
<td>Negligible</td>
<td>Major</td>
<td>High</td>
</tr>
</tbody>
</table>

### CONSEQUENCES of risk occurring

**KEY TO RISK MATRIX (based on those used in AS/NZS 4360-2004)**

#### Likelihood Assessment
- **Highly likely**: Is expected to occur in most circumstances
- **Likely**: Could occur in many circumstances
- **Unlikely**: Could occur in some circumstances
- **Highly unlikely**: May occur only in very rare circumstances

#### Consequence Assessment
- **Marginal**: There is minimal or no negative impact
- **Minor**: There is some negative impact
- **Intermediate**: The negative impact is substantial
- **Major**: The negative impact is severe

#### Risk Estimate
- **Negligible**: Risk is insubstantial and there is no present need to invoke actions for mitigation
- **Low**: Risk is minimal but may invoke minor actions for mitigation beyond normal practices
- **Medium**: Risk is of marked concern that will necessitate actions for mitigation that need to be demonstrated as effective
- **High**: Risk is unacceptable unless actions for mitigation are highly feasible and effective
Commercialisation/Adoption Plan Template

Some questions to consider when developing an adoption/commercialisation strategy

Why are we doing the project?
Who has done, or is doing, similar things?

Who wanted this research and why?

Where is the market analysis?

Project Outcomes:
- Define these in terms of usable outcomes for end users

How will outcomes be used by end users?
How will the outcomes contribute to Investor priorities and strategic goals?
What are the adoption/commercialisation pathways and strategies?
What is the potential intellectual property?
Is there a potential commercialisable product or process?
What protection of IP is required, where and when?
What action is in place to protect IP prior to statutory protection?
What are the potential benefits to end users?
Are there potential commercial partner(s) – potential early adopters:
Have they agreed?
What are the terms?

If not already in place, what is the plan for such engagement and when?
Form of project outcomes:
Eg Data, product, process, new variety,
How will outcomes be delivered to end users?
Can they use it in that form or will some further actions be required?
If so, what will this be?
What are the risks associated with this commercialisation adoption strategy?
Develop chart of Commercialisation/Adoption Tasks and timeline
List step by step tasks including IP protection
Prepare Commercialisation/Adoption budget:
What is the cost of each step in the adoption/commercialisation pathway?

Review:
the cost/benefit

Who wanted this research and why?
Case Study
Case Study

Commercialisation and Adoption Planning

This Case study is provided for use in practicing to develop a commercialisation/adoption strategy and plan. Note the applicant responses are not ideal and the task is to identify how they could be improved, taking into account issues raised in the Planning Checklist in the previous section of this manual.

Note: This case study has been adapted from real applications but the resultant scenario is fictitious. Assume that the project would work technically, and focus on the IP and commercialisation/adoption issues.

APPLICATION FORM (selected sections from the HAL on-line Form)

CONFIDENTIALITY
If you want to request confidentiality for your project, please enter details in the form below. This request is subject to HAL approval

APPLICANT RESPONSE
There are no confidentiality issues

RESOURCES:
Please list all personnel such as project leader, team members, collaborators and administrator for the proposal. Personnel not nominated in this section will not have access to the proposal.
Please list at least one independent recommended expert who could be used to review the proposal

APPLICANT RESPONSE
Joan Smith, Extension Hydrologist, DPI
Bill Jones, Economist, ABC consulting
Jane Brown, Technical Officer, CSIRO
Peter Smith, PhD student
Rob Green, Chemist, ABC chemical company,
Jim Jones, CSIRO Supervisor

SUMMARY:
Provide a summary describing the overall aim of your proposal. Please include: aims, strategy, outputs, outcomes of the proposal; assume your target audience has no prior knowledge of the issue to be investigated.

APPLICANT RESPONSE
• This project aims at improving the water use efficiency across the horticulture sectors by better packaging and provision of information to users. In addition new irrigation technologies will be developed. The sector has set a target of 20% improvement in water use efficiency over the next 5 years. On-property improvements can produce more crop per litre, reduce salinity and run-off and
**APPLICATION FORM (selected sections from the HAL on-line Form)**

- **improve irrigation applications**
  - Water users and their advisors will be trained on simple changes that can be made and then on the even greater benefits of higher technology adoption, including the cost benefits of changed practices.
  - They will have access to the most recent advances in water use efficiency and with local trials and demonstrations will be able to identify the applicability of new technology to their particular environment; project will also update existing guidelines and decision making water use systems to incorporate this latest technology.

**BACKGROUND**

In this section describe and quantify the problem or opportunity that is intended to be investigated.

Include details of related work undertaken by yourself and/or others (both in Australia and overseas).

Include details of any literature reviews undertaken.

**APPLICANT RESPONSE**

For brevity, this section has not been answered, but important part is:

- Literature review – who else is doing this
- IP review – does anyone have registered IP in this area; can you justify that you have freedom to operate
- Market analysis or estimation – why do you think the end users want these project outcomes

**METHOD**

Describe in detail the method that will be used to investigate the problem or opportunity; include details of any experiments, trials, surveys etc

**APPLICANT RESPONSE**

- Develop and deliver of new training courses
- Evaluate irrigation techniques and on-farm use of water flow monitoring devices
- evaluate methods for rapid assessment of water volumes in storages
- integrate new systems into on-farm practice management software

**OUTPUTS**

List the goods or services that will be produced by this work (eg new variety, pesticide regime, best practice manual, articles etc)

**APPLICANT RESPONSE**

- training courses
- demonstrations and field days
- improved water module software for farm management systems
- new irrigation technologies
- economic evaluations of water usage

**OUTCOMES**

In this section list the expected measurable benefits of this work (eg 20% decrease in crop infestation within 2 years of project completion. Please list how the outcomes of your proposal will be evaluated, ie how your project will be assessed at the completion of the work.)
APPLICATION FORM (selected sections from the HAL on-line Form)

APPLICANT RESPONSE
- 20% decrease in water usage per hectare
- 15% reduction in water costs
- 25% reduction in water related capital infrastructure costs

INDUSTRY ADOPTION
Who is the target audience?
What are the specific adoption targets, eg region targeted, percentage of audience expected to implement the new technology etc?
What are the strategies for adoption including timeframe?
What are the critical success factors or impediments to adoption?

APPLICANT RESPONSE
- Targeted at Australian horticulture growers
- Information disseminated at industry field days, demonstrations
- Training courses in each State
- IDO extension program

COMMERCIALISATION:
What IP if any will be created by the work undertaken?
What permission is required of third parties to undertake this work (eg permission of owners of patents, copyright etc)?
How will the product/service created in this proposal be made available to users?

APPLICANT RESPONSE
- No background IP
- Some copyright produced, but public domain
- Some farmer innovation in irrigation systems may eventuate
- Any IP owned by HAL, DPI, CSIRO and originating farmers

BUDGET JUSTIFICATION
In this section list the key activities to be completed during the life of the project and the anticipated expenditure for both the Full Cost and the HAL Component. The Full Cost must be greater than or equal to the HAL Component for each activity.
The total of the HAL component must equal the ‘Total funds managed by HAL’ and the total of the Full Cost must equal the ‘Total funds for the project’ in the Proposed Budget Screen.
If it is an overseas activity include the word ‘overseas’ in the description. For each activity provide justification for the budget requested.

BUDGET
Please enter sources of funds to build the proposed budget. Pick the appropriate ‘Source type’ and the ‘source’ of funds. If the source of funds does not exist click ‘create new organisation’. Enter either the contributed amount or the total amount
### APPLICATION FORM (selected sections from the HAL on-line Form)

<table>
<thead>
<tr>
<th>APPLICANT RESPONSE</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total funds from other sources (not managed by HAL)</td>
<td>$50,000</td>
</tr>
<tr>
<td>Total funds from voluntary contributions</td>
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<tr>
<td>Total funds from industry levies</td>
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<tr>
<td>Total funds for the project</td>
<td>$100,000</td>
</tr>
<tr>
<td>Total funds managed by HAL</td>
<td>$50,000</td>
</tr>
</tbody>
</table>

### MILESTONES

For each milestone required, click on the 'Add milestones' link and enter in description, achievement criteria and due date.

Once all the required milestones are entered, select the first milestone in the table and click on 'Update Milestone Funding' link. 20% of the total budget will be allocated to the last milestone; the remaining 80% against the first milestone.

The amounts in the Milestone Screen are determined from the funding source(s) entered in the Proposed Budget Screen. If more than one funding source has been entered the following steps need to be repeated.

While the first milestone is still highlighted, click 'Edit' in the lower table, enter the funds required for this milestone and click 'update'. Repeat for any remaining funding sources.

Click on the next milestone and click the ‘Update Milestone Funding' link, repeat the steps above. Keep redistributing all funds until they have been appropriately allocated.
References
References

- Background Materials provided

- Web sites:
  - www.horticulture.com.au (HAL website)
  - www.ipaustralia.gov.au
  - www.ausicom.com.au – Australian Institute for Commercialisation (AIC)
  - www.lesanz.org.au – Licensing Executives Society of Australia and New Zealand
  - Understanding PBR website, ACIPA
    www.acipa.edu.au/frame_pbr.html
  - How to Guide for Commercialisation HAL/ Mann Judd Consulting
  - Commercialisation Casebook, CDI Pinnacle Final Report
    HAL project AH05007
    http://www.horticulture.com.au/Project_Result/project_result.asp?src=projects&orgid=0&projid=1743&strSearch=&strProjectNo=AH05007&strIndustry=0-All&strSortby=date&strDisplay=expand&pageno=1
  - ACCC Authorisations and Notifications Register
    http://www.accc.gov.au/content/index.phtml/itemId/6031/fromItemId/3673
  - Plant Breeder’s Rights and Patents for Plants – a compendium of case law for horticulture industries, ACIPA
– Commonwealth of Australia Law (for Australian Government legislation)
  http://www.comlaw.gov.au

– Australasian Legal Information Institute (for court cases)
  http://www.austlii.edu.au