LEGISLATIVE INCENTIVES FOR INVENTIVE EMPLOYEES

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1. INTRODUCTION

Australian patentees possess the exclusive right to "exploit"[1] their invention for 20 years[2].[3] This artificial monopoly aims to encourage and reward intellectual efforts. The reality is that employees create the majority of patented inventions in our modern society.[4] Some jurisdictions ensure these employees are rewarded by enshrining their rights to compensation in legislation. The creation of this incentive for an employee to invent must be balanced against the incentive for an employer to invest in R&D activities.

There have been recent changes to the *Patent Act* 1977 (UK) ('UK Act') with respect to its employee compensation scheme.[5] Australia has no such scheme and this paper assesses whether some form of statutory protection is appropriate for our inventors. This paper reviews the strengths and weakness of UK approach and takes a brief look other jurisdictions. It is clear there is critical balance between protecting the employee, the employer and the innovation industry as a whole.

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[1] 'Exploit' is defined in Schedule 1 of the *Patents Act* 1990 (Cth) ('Australian Act') as: 'make, use, hire, sell or otherwise dispose of the product' or offer to do so, 'import it or keep it for the purpose of doing any of those things', or use a patented process or method to achieve any of those ends. These exclusive rights of the patentee also include a right to licence or assign the patent to others.

[2] s67 Australian Act.

[3] s13(1) and 13(2) Australian Act.

[4] In the UK and US approximately 80% of inventions are made by salaried employees: J Phillips & MJ Hoolahan, *Employees' Inventions in the United Kingdom: Law and Practice*, (Oxford: ESC Publishing, 1982), p 3; WP Hovell, 'Patent Ownership: An Employer's Rights to his Employee's Invention' (1983) *Notre Dame Law Review* 93. In France and Germany, the figure is about 90%: J Jonczyk, 'Employee Inventions' (1989) 20 (6) *IIC* 847, p 856; E Pakuscher, 'Rewards for Employee Inventors in the Federal Republic of Germany – Part 1' (1981) 11 *EIPR* 318, p 318.

[5] *Patents Act* 2004 (UK); s40-41 UK Act.

2. OWNERSHIP AND INVENTORSHIP

Under both the UK Act[6] and Australian Act[7] a patent for an invention can be granted to the "inventor" (or joint inventors) ***or*** to a person who derives rights from the inventor. There are important differences in these pieces of legislation. Whereas the UK Act expressly provides for ownership rights in inventions made by an employee,[8] the Australian Act[9] is silent on the issue.

Before assessing whether some form of statutory protection is appropriate for Australian inventors, it is necessary to review the differences between Australian and UK patent law with respect to ownership. First, it must be noted that "inventorship" is a necessary precursor to any analysis of "ownership". Australia and the UK take similar approaches to identifying the "inventor". The UK Act defines "inventor" as the "actual devisor" of the invention[10] whereas, although there is no definition in the Australian Act, it is accepted to be a person who had "a material effect on the final concept of the invention".[11] The contributions from the relevant parties are analysed.[12]

Although there is a general principle that it is "…inherent in the legal relationship of master and servant that any product of the work which the servant is paid belongs to the master"[13] there is no "rule" that an invention made by an employee is inevitably the property of the employer.[14] Whether

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[6] s7(2) UK Act.

[7] s15(1) Australian Act.

[8] s39-43 UK Act.

[9] In Australia, the entitlement of an employer to the grant of a patent for an invention made by an employee arises under s15(1)(b) of the Australian Act i.e. where the employer would on the grant of the patent be entitled to take an assignment of the patent; see *Spencer Industries Pty Ltd v Collins* [2003] FCA at 10.

[10] s7(2)(a) & (3) UK Act and s130(1) UK Act; see *Allen v Rawson* (1845) 135 ER 656; *Henry Brothers (Magherafelt) Ltd v Ministry of Defence and Northern Ireland Office* [1999] RPC 442, 446 CA.

[11] see for example: *Row Weeder Pty Ltd v Nielson* (1997) 39 IPR 400 at 403; *Harris v CSIRO* (1993) 26 IPR 469; Note that consent is required from all joint inventors before any licensing can occur under s16 of the Australian Act; see A Meltzer, P Howard, P Lau and M de Alwis. 'Joint ownership of IP – is it the best option for collaborators?' AIPLB 18(3) 37.

[12] see for example: *Re Application by CSIRO and Gilbert* (1995) 31 IPR 67; *MacKay v McKay* (2004) 63 IPR 441; see s15 Australian Act; see *Conor Medsystems Inc v The University of British Columbia* (No 2) [2006] FCA 32 where, according to Finkelstein J, a patent is not granted to the "actual inventor" if it was granted jointly to two or more persons one of whom was not the inventor. The Court has the power to revoke the patents under s138(3)(a) Australian Act if the applicant can establish through its evidence that there is a defect in the title to the patent; This follows the US approach where only an "inventor" can apply for a patent. If a person who is not the inventor should apply for a patent, the patent, if it were obtained, would be invalid. Therefore careful details as to contribution are frequently recorded in log-books; see D Marchese. 'Joint Ownership of Intellectual Property' (1999) *EIPR* 21(7) 364, p 365.

[13] *Patchett v Sterling Engineering Coy Ltd* (1955) 72 RPC 50 (HC) at 58.

[14] see *Spencer Industries Pty Ltd v Collins* [2003] FCA at 10: applied recently in *MacKay v McKay* (2004) 63 IPR 441; also see *Victoria University of Technology v Wilson* (2004) 60

the employee is a "person entitled" is based on common law and equitable principles or any express contractual arrangements between the parties.[15] Frequently, the employer's ownership of an employee's invention is a term in the employment contract. [16] In these cases the Courts have generally had little difficulty in giving effect to such arrangements, subject to any principles against the enforcement of provisions amounting to a restraint of trade.[17] In the absence of any express contractual obligation the Courts have frequently implied the conferral of equitable property of the invention to the employer based on the employee's general duty of fidelity.[18] The Court has regard to the capacity in which the employee was employed and the circumstances in which the invention was created to imply this entitlement. Where employees are "employed to invent" and, in the course of employment have used the employer's time, resources and materials, the employer owns the patent rights and the employee holds the invention (and the right to become the patentee upon the grant of the patent) on trust for that employer.[19]

IPR 393 at 104; Lahore, J, Patents, Trade Marks and Related Rights, Butterworths, Sydney ('*Lahore'*) para [22,017].

[15] see generally: A Stewart, 'Ownership of Property in the Context of Employment' (1992) *AJLL* 1.

[16] Australian public universities may create an IP statute that binds staff and students and is frequently made a condition of employment. An IP Policy may also be made a condition of employment; see *Victoria University of Technology v Wilson* (2004) 60 IPE 392; see generally AF Christie, S D'Alosio, KL Kaita, MJ Howlett and EM Webster. 'Analysis of the Legal Framework for Patent Ownership in Publicly Funded Research Institutions' (2003). [Internet - http://www.dest.gov.au/sectors/research_sector/publications_resources/other_publications/patent_ownership_in_publicly_funded_research_institutions.htm (Accessed 2 February 2006.)]; see A Monotti, 'Who Owns My Research and Teaching Materials – My University or Me' (1998) 19(4) *Sydney Law Review* 425.

[17] The common law doctrine of restraint of trade dictates that any contractual provision governing the inventive capacity of the employee once employment has ceased is void unless doing so would adversely interfere with the employer's interests: see *Electrolux v Hudson* [1977] RPC 312 where the provision was so broad as to purport to apply to any invention made by the employee, whether or not the employee was employed to invent or whether the invention was related to the employee's duties; W Cornish, 'Rights in Employees' Inventions – the UK Position' (1990) 21 *IIC* 298, p 300.

[18] *Sterling Engineering Co Ltd v Patchett* [1955] AC 534 at 544 per Viscount Simonds; *Triplex Safety Glass v Scorah* [1938] 1 Ch 211 at 217 per Farwell J. This implied duty of fidelity is purely contractual and does not interfere with the normal or specific duties of the employee, rather it relates to the mode of carrying out the employee's duties: *Re Harris' Patent* [1985] RPC 19 per Falconer J.

[19] *Worthington Pumping Engine Co v Moore* (1902) 20 RPC 41; *Aneeta Window Systems* (1996) 34 IPR 95; *Triplex Safety Glass Co v Scorah* [1938] Ch 211; *Kwan v Queensland Corrective Services Commission* (1994) 31 IPR 25; *Adamson v Kenworthy* (1931) 49 RPC 57. This trust relationship is also the result where the invention is patented in the employer and employees' joint names; *see Sterling Engineering Co Ltd v Patchett* [1955] AC 534; *Spencer Industries Pty Ltd v Collins* [2003] FCA 542 at 67 where Branson J held the employee did not make the invention, a new tooth for a rasp blade which would produce a more uniform cutting action, within the course and scope of his employment as a sales manager. Branson J cited the decision of Haggar, the delegate of the Commissioner of Patents in *Spencer Industries Pty Ltd v Collins* (2002) 54 IPR 434 stating: "It is very material to see what is the nature of the inventor's position in regard to the business, and it may be a term of his employment, apart altogether from any express covenant, that any invention or discovery made in he course of the employment of the employee in doing that which he was

Employers may no longer simply rely on the fact that the invention was created during work hours and with work materials.[20] Whether an employee's activity is in the "course of the employment" is decided on a case-by-case basis[21] with the Courts taking account of all of the circumstances. No single factor is conclusive.[22] One considers the extent to which the employee was responding to the employer's directions, the nature of duties which he or she was employed to perform and the extent to which the invention is derived from the performance of those duties.[23] Typically, where an employee is not "employed to invent" and invents something outside their usual duties, that employee will retain the entitlement to the invention.[24] It can be difficult to determine what is outside the "normal course of work". Further difficulties ensue when the scope of duties change throughout the employment term.

Australian law also provides that where an employee owes fiduciary obligations to the employer, that employee is not allowed to put himself or herself in a position where his or her interest and duty conflict. If the fiduciary profits as a result of his or her position or from an opportunity or knowledge resulting from it, then the fiduciary must hold any benefit or gain as constructive trustee.[25] To avoid liability, full disclosure is necessary with consent to profit obtained from the employer. [26] In determining whether a fiduciary obligation exists the Courts may take into account:

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engaged and instructed to do during the time of his employment, and during the working hours, and using the materials of his employers, should be the property of the employers and not the employee, and that, having made a discovery or invention in the course of such work, the employee becomes a trustee for the employer of that invention or discover, so that a trustee he is bound to give the benefit of any such discovery or invention to his employer".

[20] E Raper, 'E Recent Cases: Employee Ownership of Inventions – A Re-examination' (2004) *AJLL* 17(1) 81, p 83.

[21] Raper, above n 20, p 83.

[22] *Triplex Safety Glass Co v Scorah* (1938) 55 RPC 237; *Fine Industrial Commodities Ltd v Powling* 71 RPC 253; Lahore, above n 14, at [22,117].

[23] Lahore, above n 14, at [22,137].

[24] see for example: *Selz's (Charles) Ltd.'s Application* (1954) 71 RPC 158; *Electrolux Ltd. v Hudson* [1977] FSR 312; *Kwan v Queensland Corrective Services Commission* (1994) 31 IPR 25; *British Symphon Co Ltd v Homewood* [1956] 2 All ER 897; *Spencer Industries Pty Ltd v Collins* [2003] FCA 542; *Sterling Engineering Cp Ltd v Patchett* [1955] AC 534 at 543-544; Lahore, above n 14, at [22,137].

[25] Lahore, above n 14, at [22,119]; see *Victoria University of Technology v Wilson* (2004) 60 IPE 392 where Nettle J was not prepared to recognise a constructive trust over the relevant intellectual property for the benefit of the university despite finding that two senior academics breached their fiduciary duties to the university because of the impact it would have on innocent third parties who held shares in the corporate vehicle. Instead, a constructive trust was imposed over the shares in the company in favour of the university. The Court held that allowance should be made for the academic's time, energy, skill, capital and risk expended in developing the invention, such value to be determined by a special referee; also see A Monotti. *Australia: Patents – Ownership of Academic Employee Inventions* (2004) *EIPR* 26(8) N129; Also note s189(2) of the Australian Act where unregistered interests are not protected from bona fide purchasers for value without notice.

[26] *Victoria University of Technology v Wilson* (2004) 60 IPE 392 at 149 per Nettle J.

- § the employee's position;
- § whether the invention was made during outside working hours;
- § whether the employer's facilities and materials were used;
- § whether the employer's confidential information was used in making the invention;
- § the employee's level of remuneration;
- § the extent to which the duties of the employee prompted the invention or provided access to the resources to make it;
- § whether the employee acted with the intention of harming the employer. [27]

The relevant provisions of the UK Act[28] are a close approximation to a codification of the common law on "ownership".[29] In short, an invention belongs to the *employer* if the employee makes the invention in the course of his or her duties where:

- § it is reasonable to expect that an invention might result from the performance of those duties; *or*
- § specific duties fall outside the normal duties but it is reasonable to expect that an invention might result from the performance of those duties; *or*
- § there is a special obligation to further the interests of the employer's business (e.g. a director of the company which employs him[30]).[31]

In all other cases, the invention will most likely belong to the employee.[32]

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[27] Lahore, above n 14, at [22,119]- [22,120].

[28] The legislation was enacted despite the 'Report of the Committee to Examine the Patents System' ('Banks Committee Report') *Cmnd* 4407 (UK) (1970) stating that statutory means were inappropriate to deal with employee inventions.

[29] s39 UK Act; Cornish, above n 17, p 300.

[30] *Unitec Systems' Application* (BL o/143/94).

[31] s39 UK Act; Patents Act 2004 Guidance Note No. 1 'Compensation of Employees for Certain Inventions' ('*Guidance Note*') [Internet - http://www.patent.gov.uk/about/ippd/issues/patsact/note1.pdf (Accessed 7 February 2006); *Harris' Patent* [1985] RPC 19.

[32] *Guidance Note*, above n 31; see generally: PA Chandler, 'Employee Inventions: Inventorship and Ownership' (1997) *EIPR* 19(5) 262.

3. COMPENSATION IN THE UK

Under the UK Act, regardless of whether the invention automatically belongs to the employer or is subsequently assigned or exclusively licensed to the employer, the employee named as the "inventor"[33] may be entitled to compensation over and above the employee's salary or any payments for a licence or assignment ***if*** the invention or patent (or both)[34] is of "outstanding benefit" to the employer.[35] Prior to 1 January 2005, it was the "patent" that had to be of "outstanding benefit" to the employer.

Arguably, the recent amendments to the UK Act[36] make it easier to establish that the benefit was "outstanding" where the invention has been beneficial for reasons beyond those related to the existence of the patent itself, e.g. where a patent is incorporated in a product it may be easier to establish the benefit arising from the "invention" in terms of sales rather than to try to establish the benefit attributable to the patent itself. [37]

The UK Patents Office[38] suggests that a:

§ "benefit from the patent" may include royalty payments from a licensee and profits due to others being blocked from entering the market;

§ "benefit from the invention" may include profits due to the invention being a technical solution in itself, that is profits due to successful marketing are excluded.[39]

The UK Patents Office[40] states that "benefit from the invention" cannot include any benefit that occurs (or is expected) once the patent has:

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[33] If the employee has not been named the employee must file an application under s13(1) UK Act.

[34] In all cases a patent must have been granted for the invention in question.

[35] s40(1) and s40(2) UK Act; The procedure for an employee to apply for compensation to the Patents Court or the Comptroller is prescribed by rule 63.12 of Part 63 of the Civil Procedure Rules (CPR 63) and by rule 59 of the Patents Rules 1995; see Manual of Patent Practice Chapter [Internet - http://www.patent.gov.uk/patent/reference/mpp/s39_43.pdf. (Accessed 7 February 2006)].

[36] s10 *Patents Act* 2004 (UK).

[37] E.g. where a patented invention is incorporated in a product it is likely to be easier to establish the benefit arising from the invention in terms of product sales rather than to try to establish the benefit attributable to the patent of itself.

[38] UK Patent Office Presentation (2004) (*'Seminar'*): [Internet - http://www.patent.gov.uk/about/ippd/issues/patsact/patactstoryboard.pdf. (Accessed 2 February 2006)].

[39] "Benefit from the invention" cannot include any benefit that occurs (or is expected) once the patent has expired, been surrendered or been revoked

§ expired;

§ been surrendered; or

§ been revoked.

"Benefit" is defined as "benefit in money or money's worth"[41], and includes anything that can be measured in financial terms.[42] The *Guidance Note*[43] suggests that a "benefit from a patent" includes:

§ the fees that a patent holder will receive from any third party under an agreement to use the invention covered by the patent. Without the patent, there would be no such income;

§ increased monopoly profit made by a patent holder who chooses to exploit the invention himself. To demonstrate such a benefit, it would have to be shown that, but for the patent, it would be possible for rival firms to enter the market for the products concerned and eliminate the excess profit.

The *Guidance Note*[44] also suggests that a "benefit does not arise from the invention or the patent" if sales of a product that includes the invention are high because:

§ the company has an effective marketing and sales team who develop an imaginative advertising or promotion campaign;

§ the product development team has made improvements which make the product attractive to customers.

In other words, the employee must show that the "outstanding benefit" gained by the employer was a result of the "invention" having been patented, rather than the intrinsic merits of the invention itself.[45] Although the Courts have not provided a precise definition of "outstanding benefit" they have suggested that it is a "benefit" that is more than substantial or good and denotes something special or out of the ordinary.[46] This is a high threshold and one

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[40] UK Patent Office Presentation (2004) (*'Seminar'*): [Internet - http://www.patent.gov.uk/about/ippd/issues/patsact/patactstoryboard.pdf. (Accessed 2 February 2006)].

[41] s43(7) UK Act.

[42] *Guidance Note*, above n 31.

[43] *Guidance Note*, above n 31.

[44] *Guidance Note*, above n 31.

[45] *Memco-Med's Patent* [1992] RPC 403 where it was decided that the onus of proof that the benefit was derived from the patent rather than the invention lay on the employee but *may* thereafter shift to the employer depending on the evidence.

[46] *Guidance Note*, above n 31; *GEC Avionics' Patent and British Steel PLC's Patent* [1992] RPC 117.

measured in the context of each employer's business.[47] It would therefore be difficult to prove that a large multinational, with an extensive patent portfolio, derived an "outstanding benefit" from a single patent. [48] Further, an "outstanding benefit" today may very well be rendered worthless tomorrow as a result of new technology. There are obvious risks in speculating profits. Further, what if the invention is of outstanding benefit only in another division?[49] What is the impact of a corporate restructure?[50] Despite a patent providing substantial wealth, that profit may be only a small percentage of total profits derived from the patent portfolio. The size of the employer therefore is relevant i.e. a given benefit may be "outstanding" to a small company but worth little to a large multinational. This distinction defeats the objectives of the legislation. It may be many years before the benefit of the patent may be considered "outstanding" enough to bring a successful compensatory claim.[51] How do you value a cross-license or a patent that blocks a competitor?

Compensation is awarded if it appears to be "just"[52] and is assessed on a "fair share".[53] The UK Act provides a non-exhaustive list of factors that the Court takes into account in this determination, including the nature of the employee's duties, the employee's remuneration, the efforts, skills and contributions by non-inventor employees and the employer e.g. advice, facilities, opportunities, managerial and commercial skills.[54] It submitted that it is difficult to quantify these factors.

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[47] see: *Consultation on Proposed Patents Act (Amendment) Bill* [Internet - http://www.patent.gov.uk/about/consultations/patact/proposals2.htm (Accessed 4 February 2006)].

[48] E.g. In one case, (dismissed summarily) profit figure of between 1.5-1.85% were quoted and considered not to be of "outstanding benefit"; see *Michael Stuart Bacon v Entertainment (UK) Ltd* Patent Case Summary 0/319/01 (6 July 2001).

[49] The Intellectual Property Lawyers Association's in response to the *Proposed Patents Act (Amendment) Bill* provides the following example: Suppose a group of companies has 2 divisions, making super-conductors and widgets. An improved widget, however exceptional, lucrative and advantageous to the widget division, might never 'register' in the context of the combined business of widgets and super-conductors.": *Consultation on Proposed Patents Act (Amendment) Bill* [Internet - http://www.patent.gov.uk/about/consultations/responses/patact/responses/organisations/ipla.htm (Accessed 7 February 2006)].

[50] Note that s40 UK Act requires the applicant to apply to the comptroller or court with reference to the employer and not the current proprietor of the patent; see *Fellerman's Application* (BL O/11/96).

[51] Chandler, above n 32, p 601. This is particularly the case where the patent must be of an "outstanding benefit" to the employer. Where the time frame is short it makes it difficult to prove such a benefit: see *British Steel Plcs' Patent* [1992] RPC 117.

[52] s40(2) UK Act.

[53] s40(1) and s41 UK Act; Chandler, above n 32, p. 601. This also includes benefits made outside the UK.

[54] s41(4) UK Act.

Further, there seems little point in adopting an unworkable scheme where no-one has yet been awarded compensation.[55] Many of the problems under the old system remain. Onerous administrative requirements and evidentiary burdens remain e.g. the employer is required to record information regarding costs, any factors surrounding the making of the invention[56] and patent benefits;[57] information which, such as sales figures, may prove difficult for the employee (and ex-employee) to obtain.[58] Further difficulties arise where the employee is required to show that it was the patent/invention that secured the sales and not the price, quality or the company's brand, goodwill or pre-existing customer relationships. How are these factors proved or valued by the employee? These technical and/or legal assessments would be costly to conduct.

There is no avenue of compensation where the employer chooses either not to patent or exploit the invention by other means such as trade secrecy.[59] The statutory scheme is an anomaly with other IP rights such as logos, slogans, manuals, source code and know-how. These may be no less valuable to an employer.

The scheme leaves many unanswered questions. For example, what happens to a claim where revocation or infringement proceedings are commenced? What happens where an employee is granted compensation but years later another party claims that they are the inventor?

It would be rare for today's employee not have entered some form of employment contract. It is noteworthy that the compensation provisions in the UK don't apply where there is a "relevant collective agreement"[60].

Given that most R&D is done as a team, it appears that UK provisions may ultimately benefit very few. Overall, the costs seem to outweigh any benefits of this scheme.

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[55] *Memco-Med Ltd's Patent* [1992] RPC 403; *GEC Avionics Ltd's Patent* [1992] RPC 1-7; *British Steel PLC's Patent* [1992] RPC 1777; *Fellerman's Application* (BL 0/7/98); *Dixon International Group Ltd's Patent* (BL 0/164/98); *Garrison Ltd's Patent* (BL 0/44/97). J Phillips, 'Rewarding the Employee Inventor' [1985] 10 *EIPR* 275, p 278.

[56] Cornish, above n 17, pp. 303-304.

[57] Chandler, above n 32, p 601.

[58] *GEC Avionics Ltd.'s Patent* [1992] RPC 107; *Communication & Control Engineering Company* Limited's Patent 2115226 (BL O/82/93).

[59] Hodkinson, above n 77, p 148.

[60] s40(3) UK Act. The term "relevant collective agreement" is defined under s40(6) UK Act as "a collective agreement within the meaning of the *Trade Union and Labour Relations (Consolidation)* Act 1992, made by or on behalf of a trade union to which the employee belongs, and by the employer or an employers' association to which the employer belongs which is in force at the time of the making of the invention".

4. OTHER STATUTORY APPROACHES TO COMPENSATION

Any consideration of whether Australia requires a statutory compensation scheme should incorporate a study of other international schemes. Other countries that require employers to remunerate employees who create a commercially successful invention include Germany and Japan.

4.1 Japan

Japanese Patent Law assigns the right to the invention to the employee whereby the employer receives the right to a non-exclusive licence and is not obliged to pay compensation. The legislation purported to encourage innovation by requiring "adequate remuneration" for employee inventors that assigned the right to the inventions or granted an exclusive licence to their employer.[61] Although in the past, this "reasonable compensation", calculated by reference to the employer's profits and the employee's contribution, was never more than several million yen[62], recent decisions have seen multi-million dollar awards[63]. Corporations became concerned as it became clear

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[61] Article 35(3) Patent Law.

[62] The first dispute to shifting the balance of power from the employer to the employee-inventor was filed in 1995 in Oly*mpus v Tanaka* Case No. Heisei 13 (ji) No. 1256, 22 April 2003 where the Supreme Court of Japan upheld the award of two lower Courts and confirmed that the award paid for the invention for pick-up devices for CD and VCD players should have been ¥2.5 million (approximately AU$30,000) and not ¥210,000 (approximately AU$2,500); see P Morico and T Morrow. 'Smart Pills: Shifting the Balance' *IP Law & Business*. June 2004. [Internet - http://www.ipww.com/texts/0604/smartpills0604.html (Accessed 7 February 2006)]; JA Tessensohn, '*Japan: Patents/Ownership Disputes relating to Ex-Employees*.' (2004) *EIPR* 2004 26(5) N63, N64. D Schnapf, 'Japanese Statute: bane of employers' *The National Law Journal* October 11 2004 NA.

[63] In *Yonezowa v Hitachi Co Ltd* Case No. Heisei 14 (ne) 6451 29 January 2004 the Tokyo High Court awarded almost ¥163 million (about AU$1.9 million) which was about 14% of the estimated global profits to an inventor employed to develop a more precise laser beam for CD players. Hitachi originally paid Yonezowa ¥2.3 million (approximately AU$27,000) for his efforts. The next day, the Tokyo District Court in *Nakamura v Nichia Chemical Co Ltd* Case No. Heisei 13 (wa) 1772, 30 January 2004 ordered an ex-employer to pay ¥20 billion (about AU$238 million), the highest award ever granted by a Japanese Court in such disputes, for a blue light emitting semiconductor. Although the Court considered that Nakamura's contribution was not less than 50% and set compensation for ¥60.4 billion (approximately AU$719 million) half of the estimated global profits (including patent related profits from estimated future sales), Nakamura only requested ¥20 billion in his complaint. He ultimately settled for approximately AU$10 million; see Tessensohn, above n 62, N63. PR Morico and TM Morrow, 'Nakamura case presents opportunity for novel litigation strategies' *IP Litigator* (2005) May-June 11(3). 23(7); Y Miyoshi, 'Getting your Invention Reward System Right. Managing Industrial Property'. *Supplement – Japan IP Focus* 2005 [Internet - http://www.managingip.com/?Page=17&ISS=15442&SID=503871 (Accessed 7 February 2006)]; see 'Considerations of the Court on the Settlement, *Nakamura v Nichia Chemical Co Ltd* Heisei 16 (Ne) No. 962, No. 2177 where the Court appears to be retreating from earlier interpretations of Article 35 stating that the amount of reasonable remuneration should not be a severe burden for a company in light of the need to undertake R&R in the international market [Internet - http://www.nichia.com/domino01/nichia/newsnca_e.nsf/2005/01113 (Accessed 7 February 2006); see 'Inventor Settles over LED Patent' *Sydney Morning Herald*.

that foreign corporations were not immune[64] and they re-evaluated the scope of their Japanese operations.[65] The recent payouts created a disincentive to invent in Japan. The Japanese government responded with amendments to Article 35 of the Patent Law taking effect from April 1 2005. The amendments are not retrospective.

The legislation provides that the amount that a company remunerates an inventor can be determined based on an agreement, employment regulation or any other stipulation, except where the payment of remuneration is "unreasonable".[66] "Reasonableness" is inferred if there has been a meeting or consultation where the standards for determining compensation are properly disclosed and opinions are freely exchanged. Article 35(4) lays down three factors that the courts should take into consideration:

- the degree of discussions between the employer and employee when establishing the method of calculation;
- the degree of disclosure of the established standards; and
- the degree to which the company listened to an employee's concerns when calculating the amount of remuneration for a particular invention.

If the process is "unreasonable", the Courts will assess the company's contribution to the invention process and the level of profits generated, when calculating appropriate compensation.

Although the new Article 35(5) still takes company profits into account in assessing any compensation, it recognises other factors such as the cost to the employer and the indirect benefits to the employee, including pay rises and promotions.[67]

January 11 2005 (Internet - http://www.smh.com.au/news/Breaking/Inventor-settles-over-LED-patent/2005/01/11/1105206096144.html?oneclick=true (Accessed 5 February 2006)].

[64] E.g. in July 2004 Pfizer Japan was hit with a multimillion dollar suit from an ex-employee who headed the drug laboratory at Pfizer Japan during the early 1990s. The ex-employee is looking to receive compensation claiming he invented the patented technology that allows hypertension drug tablets to be divided easily for adjustment of doses: see 'Ex-worker sues Pfizer unit again'. *Japan Times*. 21 August 2004 [Internet - http://search.japantimes.co.jp/print/news/nn08-2004/nn20040821a9.htm (Accessed 7 February 2006)].

[65] Schnapf, above n62.

[66] Article 35(4); Miyoshi, above n 63.

[67] Article 35(5) provides that when the payment of the remuneration is "recognized as unreasonable" or the procedures in Article 35(4) are not followed, the amount of remuneration "shall be determined in light of the profit to be received by the employers from the invention, burden borne by the employers, contribution made by the employers and benefit received by employees in relation to the invention; see JT Johnson and NA Voegtli. 'Whose idea is it anyway?' *Legal Times* April 4 2004; Schnapf, above n 62.

Notwithstanding the publication of case studies aimed at assisting employers[68], many ambiguities exist, further questions are raised and the willingness of foreign corporations to conduct R&D in Japan may have diminished given the potential unpredictable liabilities.[69]

It will be interesting to see whether UK employee inventors will rush to the Courts given the legislative amendments, hoping for the same high "pay outs" recently granted in Japan. Even if there are no huge payouts, this action of itself may damage UK's innovation industry.

4.2 Germany

The German statutory scheme provides that the employee is vested with initial ownership of an invention made during employment.[70] If the employee makes a "service invention", i.e. those inventions that arise from the duties of the employee or are based on the activities and experience of the company, the employee is obliged to report it to the employer. Once the employer claims the right to an invention, the employer is liable to pay the employee "reasonable compensation". [71] This calculation is complex and based on guidelines and mathematical formula.[72] If the parties cannot agree on the quantum of compensation the employee can file a claim at the Board of Arbitration[73]. If the Board's proposal is not accepted the parties can seek recourse to the Courts. Due to the complex system in calculating compensation, disputes are also complex and time consuming, particularly where the employer is required to provide information for the assessment of the actual benefit to the employer or an estimation of the value of the invention.[74] There are also obvious costs in the system: from administration to the costs to patent management.[75] These are common problems in the statutory schemes.

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[68] see Japan Patent Office "Case Studies of the Procedures Under the New Employee Invention System" November 2004 for suggested ways for determining remuneration [Internet – http://www.jpo.go.jp/shiryou_e/s_sonota_e/case_studies.htm (Accessed 7 February 2006)].

[69] Schnapf, above n 62.

[70] see further: *Law on Employee Inventions* 1957; J Suchantke, 'Germany: Employment inventions: Professor Privilege' *Managing Intellectual Property* March 2002. [Internet - http://www.managingip.com/?Page=10&PUBID=34&ISS=12550&SID=471746&TYPE=20 (Accessed 7 February 2006)].

[71] A von Faick, 'The German Perspective – a complicated system. Intellectual Asset Management' December/January 2005 [Internet - http://www.omoriyaguchi.com/Intellectual_Asset_Management_JAN2005.pdf (Accessed 7 February 2006)]; EGW Schafer, 'Employed Inventors in Germany' *Corporate Counsel* July 2001 A18.

[72] K Puri, 'Ownership of Employees' Invention' (1997) *IPJ* 1, p 19; Pakuscher, above n 4, p 318.

[73] s28-36 *German Employee Inventions Act* 1957.

[74] von Faick, above n 71.

[75] It has been estimated that 10% of a patent attorney's time is spent managing compensation problems: RP Merges, 'The Law of Economics of Employee Inventions' (1999) *Harvard Journal of Law and Technology* 13 1, 41, 43, 49-51; also see Patent System Sub-

Even if the parties reach agreement, the employee may later claim additional compensation if it later proves that the compensation was highly inequitable. The Chartered Institute of Patent Agents recently noted that "at least one large multi-national organisation decided against building a new research facility in Germany mainly because of the existence of this law".[76] Such a deterrent to foreign investment is undesirable in Australia.

5. COMMENT

It is submitted that, in Australia, most employee inventors are adequately compensated and rewarded for their inventive work through their salary, bonuses and opportunities for promotion. They are free to sell their labour to the highest bidder in the market.[77] The absence of statutory compensation can be more than adequately countered by the inclusion of appropriate remuneration clauses in employment contracts. Employees are free to negotiate. The creative employee, armed with a threat of leaving the employment just before an inventive concept has taken on a tangible form has great bargaining power with the employer and any prospective employer.[78] Further, the law is adequately flexible to correct unjust circumstances e.g. the contract is "unfair" or unconscionable in some regard. Courts are likely to refuse to uphold agreements that are overly broad, and unconscionable e.g. a restraint of trade.

Today's successful product is a result of design, production, business awareness and advertising and marketing skills and not just the efforts of the inventive R&D staff. Arguably statutory schemes create divisions within R&D teams, singling out "inventors" and disregarding the team's effort,[79] rewarding inventive tasks at the expense of other job requirements. Although the "fair share" provisions in the UK Act and recent amendments to the Japanese Patent Law purport to take these factors into account, it is difficult to separate the inventive contribution from the other factors.

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committee, Intellectual Property Policy Committee, Industrial Structure Council, 'Improvements for Employee-Invention System' December 2003 [Internet - http://www.jpo.go.jp/shiryou_e/toushin_e/shingikai_e/pdf/employee-invention.pdf (Accessed 7 February 2006)].

[76] see: [Internet - http://www.patent.gov.uk/about/consultations/responses/patact/responses/organisations/cipa.htm (Accessed 2 February 2006)]; see a summary of responses: [Internet - http://www.patent.gov.uk/about/consultations/responses/patact/enforcement.htm (Accessed 7 February 2006)].

[77] K Hodkinson, 'Employee Inventions and Designs (1) – Ownership Claims and Compensation' (1986) 7 *The Company Lawyer* 146, p 146.

[78] Merges, above n 75, p 3.

[79] Jonczyk, above n 4, p 869.

Disputes over inventorship and an overly competitive atmosphere may result in researchers keeping their results a secret,[80] destroying relationships, promoting workplace jealousy and dampening inventive spirit. Inventors may ask why they should collaborate if have to split the reward. "Why should I get a smaller piece of the pie?" This attitude results in a general reduction in the firm's knowledge base and ultimately reduces innovation.

Many in-house incentive policies share the benefits of commercial success with all employees, with some benefits going to the individual, others to the team and some to the division as a whole. [81] These schemes may include rewards such as royalties, profit sharing and employee share-option schemes (ESOP).[82] Having a say in the "business" via equity or even directorships is a valuable reward. Employees benefit from the employer's resources, contacts and experience, saving them time and money. The employee reduces their exposure to financial loss, saves on the high cost of IP protection yet still reaps the rewards. This approach may result in greater commercial success overall, maximising returns for all parties. Final profits may actually be greater than if the employee commercialised the invention independently. The employee may be a great inventor but a poor businessman. It is important that the "right people" do the "right job". The personal stake and "financial interest" also motivates the team as a whole with increased productivity and greater prospect of commercial success overall due to higher levels of commitment, morale and enthusiasm. The prospects of these rewards may make scientific work more appealing as a career and further promote and develop the R&D industry.

Arguably, statutory compensation schemes make the employer to pay twice – once for the fruitless labour and once for the rare fruit. If employers are required to pay additional compensation, employers would be likely to require that employee-inventors bear some of the risk that their inventions will not prove to be a success. Employers required to reward employees who produce successful inventions with additional compensation may be required to slash the salaries of employ inventors across the board.[83] Interestingly, our inventive employees have not pressured for any change to the law.[84] It is

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[80] Johnson and Voegtli, above n 67.

[81] For an example of a university policy see Equity Participation in Monash Commercial Entities. [Internet - http://www.adm.monash.edu.au/unisec/pol/acad25.html. (Accessed 7 February 2006)] and Statute No. 18 - Intellectual Property [Internet - http://www.murdoch.edu.au/admin/legsln/statutes/statute18.html (Accessed 7 February 2006)].

[82] This approach is frequently used in start up companies that lack the immediate financial resources to make cash incentives available. The Commonwealth government has established an Employee Share Ownership Development Unit in the Department of Employment and Workplace Relations to provide, amongst other things, information and raising awareness about the potential benefits of employee share ownership; see: [Internet - http://www.workplace.gov.au/workplace/Category/SchemesInitiatives/ESO/ESOproductsandservices.htm (Accessed 7 March 2006)].

[83] Morico and Morrow, above n 63.

[84] G Hunter & GS Sharpe, 'Patent Rights in an Employee's Invention: a Comparative Analysis and a Model for Reform' (1975) 23 (8) *Chitty's Law Journal* 253, p 264.

unlikely that the relatively few, albeit unsuccessful cases in the UK are a result from the employee's fear of “career damage” by initiating legal conflict, litigation costs or some sense of moral duty to the employer.

The path from idea to successful product is expensive and risky. Whereas the worker in the factory may be expected to produce a predictable volume of “deliverables” within a given time, given value and given profit margin, the same cannot be said for the inventor. The inventors cannot offer any assurances of profit or even useful outcome, even where they are provided with the most expensive and modern equipment and facilities. These R&D tools e.g. via material transfer agreements are costly. Further, there is the company’s base scientific knowledge, perhaps consisting of years of works that the inventor may or may not have contributed to, that must be taken into account. “But for” this base knowledge the invention may never have been “made”. The employer assumes a huge financial risk that any substantial R&D investment will not generate any positive return. As such, statutory compensation regimes result in an inefficient risk allocation where the employee, who has opted against the entrepreneurial route, has assumed a “low risk” existence. [85] Employers bear the cost of patents that carry a negative return. It is the rare successful patent that compensates for the losses in the portfolio.

6. CONCLUSION

The reality is that it is in the employer’s own interest to reward their inventive employees. It is submitted that Australian employers have seen the benefits of transparent in-house reward schemes, reducing the “brain drain” within their organisation. This flexible approach is preferable to any statutory scheme. Without *any* incentive there is a temptation not to disclose innovation. An employee may even go so far as to divert company resources for their own purposes. There is a necessary balance between providing an incentive for an employee to conduct the R&D and the employer to provide the R&D funds. A review of other jurisdictions has shown weaknesses in the relevant statutory compensation schemes. Too many questions remain unanswered. Australia’s inventive biotechnology industry is in its infancy and we cannot risk this uncertainty. Any deterrent to potential R&D funding and investment would be detrimental to this emerging industry.

[85] Merges, above n 75, p 31.