



INDUSTRIAL PROPERTY ADVISORY COMMITTEE

**PATENTS,
INNOVATION AND
COMPETITION
IN AUSTRALIA**

A report to
the Hon Barry O Jones MP
Minister for Science and Technology

29 August 1984

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The Hon Barry O Jones MP,
Minister for Science and Technology,
Parliament House,
CANBERRA A.C.T. 2600

Dear Minister,

I am pleased to submit our Report entitled "**Patents**, Innovation and Competition in Australia". It is the first review of the Australian patent system from a predominantly economic perspective and has involved over 40 formal meetings of the Committee since the reference was given to us in October 1979 by the then Minister for **Productivity**, the Hon Ian Macphie MP.

Our deliberations were assisted not only by available published material (including previous reports **on** patent systems in Australia and elsewhere), but **also** by submissions, commissioned studies, seminars, and materials prepared **by** the Patent Office. These various inputs represent a large investment of time and resources for which we are indebted. **They** add substantially to the rather **small** amount of hard data which is available concerning the operation of patents in the Australian economy and upon which future policy decisions **will** be made. **The** review has also stimulated interest and valuable discussion - sometimes controversial - in industry, government, legal and economic circles.

There has for the last century been a diverse range of opinion about the effects and usefulness of patents. The debate **will** not be put to rest by this review; **indeed**, despite unanimity on a wide range of issues, the Report itself contains dissenting opinions **on** some questions. This should not preclude, however, the implementation of desirable improvements and reforms.

The Report includes recommendations for practical measures to adapt patents to more effectively stimulate Australia's technological development, **looking** to a more technologically progressive and export-oriented future. In doing this it is necessary to **recognise** that there are both social benefits and social costs involved in the patent system. We propose changes with a **view** to achieving a more favourable **cost/benefit** margin, **emphasising** the **particular** needs of Australia while not losing sight of the international context of the system.

Yours sincerely,

J. Stonier
(Chairman)

INDUSTRIAL PROPERTY ADVISORY COMMITTEE

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Mr KN. Roberts, Policy Branch, Patent Office, Canberra (from April 1983).

CONTENTS

	Page
TERMS OF REFERENCE	
EXECUTIVE SUMMARY	1
LIST OF RECOMMENDATIONS	4
PART A REVIEWING THE AUSTRALIAN PATENT SYSTEM	11
1 Patents in the Australian economy	11
2 Approach to reform	18
PART B EXPLOITATION OF PATENT RIGHTS	22
3 Patents and competition law	22
4 Local manufacture, compulsory licensing and importation	27
PART C LENGTH AND BREADTH OF RIGHTS	36
5 Term of standard patents	36
6 Manner of manufacture	39
PART D FOSTERING NATIONAL INTERESTS	42
7 Standard and petty patents - a two-tier system	42
8 Provisional specifications	50
9 Innovation from employees' inventions	51
10 Patent information	53
PART E EFFICIENT OPERATION AND ADMINISTRATION	58
11 Procedures generally under the legislation	58
12 Search and examination	59
13 Challenging grant or validity	63
14 Enforcement of patents	66
15 Jurisdiction of courts and tribunals	68
16 The Patent Office	70
17 Patent attorneys	72
PART F THE PATENT SYSTEM ABROAD AND AT HOME	76
18 International roles and relations	76
19 Monitoring operation and effects	77
DISSENTING STATEMENT	79
REFERENCES	81
APPENDIXES	83
A Submissions	83
B Commissioned studies	85
C Seminars	86

TERMS OF REFERENCE

The broad thrust of the enquiry is to study, from the viewpoint of the Australian national interest, whether the Australian patent system as presently operating sufficiently advances Australia's technological development and whether there are ways in which it may be made to do so more effectively.

Without wishing to confine the Committee in either the scope or method of its inquiry, the following illustrate the breadth and variety of issues which should be examined:

- how the patent system can best contribute to the efficiency and progressiveness of the Australian economy and the adequacy of the system in meeting the needs of Australia with respect to the development and exploitation of new and existing technology.
- any changes required to legislation and administrative procedures to make the patent system less complex and more responsive to needs.
- how patent legislation can be **co-ordinated** with other industrial and economic policy measures.
- whether there are restrictive practices in the exercise and licensing of patents in Australia, whether it **is** desirable in the public interest to prohibit by law such practices and whether the present legislation is adequate for that purpose.
- the conditions necessary for Australia to maximise benefit from participation in the international development of patent systems.
- the ways to maximise access to and **utilisation** of patent information, including an assessment of how information sources can be **co-ordinated** with other sources of technological and business information.

EXECUTIVE SUMMARY

This is a review of the Australian patent system from the viewpoint of the national interest. The Committee's aim is to suggest ways in which the system might better enhance Australia's long term economic development through innovation. To achieve this, it is necessary to consider a number of factors, including -

- the social benefits which patents are intended to confer, deriving from their incentive effect on investment in innovation and from **disclosure** of inventions;
- the social costs which may be associated with the monopoly power conferred by patents - higher prices, restricted outputs, and the losses, from a national viewpoint, when the benefits of the monopoly accrue to foreigners - plus the direct costs of administering the system;
- the relationship between patents and other market factors affecting innovation and competition;
- the effects of participation in the international patent system, noting that while the system provides a means of protection abroad for Australian goods, services and investment, many patents **granted** to foreigners in Australia frequently are **utilised** not to support the establishment of local enterprises or **export** trade but rather as non-tariff barriers to provide protection for imported products;
- the various interests of inventors, producers and consumers, **recognising** that they have a common interest as citizens in economic prosperity and growth;
- equity aspects in the operation of the system, where necessary valuing the welfare of nationals more heavily than that of foreigners; and
- Australia's economic circumstances and policies, including other and more direct ways in which the Australian Government is encouraging innovation.

Generally, the history and characteristics of the Australian economy, singly and in combination, with heavy emphasis upon protection, foreign investment and technology importation, do not provide encouragement for the view that there are substantial benefits attributable to the operation of the Australian patent system, while actual and potential costs can be more easily identified.

On the other hand, withdrawal from the international patent system would probably be politically impossible. It would **be** likely, in any event, to affect the supply of technology by foreign firms to Australia, and to detract from the ability of Australian **firms** to penetrate large foreign markets with innovations originating in Australia.

While the economic effects of the patent system may be modest, the transition costs of withdrawal from the international system might be much larger.

We conclude that Australia should continue to operate a patent system and to participate in the international patent system.

Account must be taken of aspirations for a future in which the growth of technology-intensive industries will lead the way toward a major growth of innovation-based exports. If these aspirations should **be** fulfilled, a more favourable **benefit/cost** margin from the operation of the patent system would eventuate.

The policy approach to review and change should be to seek to **optimise** the net benefits arising from the **operation** of the patent system in the national interest

to the extent possible consistent with international conventions, having regard to the particular circumstances of the Australian economy. We should seek to modify the Australian patent laws, adjusting the length, strength and breadth of patent rights so as to **maximise** the social benefits and to **minimise** the **social** costs to Australians.

More specifically, this implies seeking -

- to gain increased benefits for Australians by **fostering** indigenous innovation, and **utilising** the international patent system in developing export markets to improve Australia's international competitive position;
- to reduce unnecessary social costs including those resulting from undesirable anti-competitive conduct involving patents; and
- to improve the efficiency of the administration of the patent system with consequent reduction of direct costs.

It needs also to be recognised that the patent system is a blunt instrument of industrial policy and cannot easily **be** fine-tuned to take account of particular cases.

We proceed to look at the role of competition law **as** a means of reducing social costs, taking the common central economic goal of both competition law and patent law to be to maximise wealth by producing what consumers want at the lowest cost. Neither competition in itself, nor innovation in itself, is an absolute goal. Each law should, so far **as** practical, accommodate the legitimate operation of the other, so that they are both consistently directed to the same common overall economic objective.

We see no reason why competition laws proscribing conduct which has substantially anti-competitive effects should not have full application in relation to anti-competitive conduct which involves patents, as it **does** in relation to other rivalrous conduct. What is critical, however, regardless of whether patents are the sole factor or one of multiple factors contributing to market power, is that the circumstance attracting the operation and sanctions or remedies of the competition law should **be** that the conduct in question is calculated substantially to lessen competition, and not merely that it involves a patent or the exercise of patent rights. In this regard, there is no reason for special treatment of patent-related conduct as such, by way of either special proscription or special exemption.

We therefore recommend the removal of certain exemptions of patent-related conduct from the Trade Practices Act and of certain proscriptions from the Patents Act, and the application of certain provisions of the former Act subject to the lessening of competition test rather than **as** per se rules.

The next matter considered is the focus of compulsory licensing provisions in patent law on what are permissible or desirable ways in which a patent may be exploited, and in particular on local manufacture or "**working**" as against importation. We conclude that the existing provisions should be retained, observing that they take account of both the possible desirability of local working and the fact that local demand may be met satisfactorily by importation. In addition, a compulsory licence ought to be available notwithstanding that the prospective licensee wishes to exercise the licence by importation. **The** court should have a discretion to order transfer of related know-how as part of the reasonable terms on which a compulsory licence is granted. Compulsory licences should **be** made a remedy available in actions under the Trade Practices Act.

A further means of reducing social costs would be to adjust the patent term. We conclude that there is insufficient evidence to warrant either extending or shortening patent term, but that extensions of term should **be** abolished.

In **considering** what types of things should be patentable, we prefer the existing flexible scope for interpretation by the courts of the expression "manner of manufacture" to a codified approach listing inclusions **and/or** exclusions.

Consideration of benefits and costs and the national interest leads us to recommend changes to the present standards of novelty and obviousness so **as** to establish a two-tier system for standard and petty patents. We propose the adoption of a "relative universal" criterion for standard but not petty patents. Thus, standard patents should be tested against disclosures in recorded form publicly available anywhere in the world, but petty patents, which we see as being particularly slanted towards the needs of Australians, should be tested only against such disclosure in Australia. To make petty patents more useful, we recommend that the allowable number of claims be raised from 1 to 3, and that the provisional specification procedure **be** available. It would not be permissible to obtain petty and standard patents for the same invention.

We recommend that the desirability of a scheme giving rights or opportunities to employee inventors **be** further studied.

Access to the store of technical information in patent documents is an important benefit of the patent system, and we make a number of recommendations designed to widen and improve the availability and use of patent information.

The objective of more efficient operation and administration of the patent system is reflected in a number of recommendations designed to make patents simple to obtain, to enforce and to challenge. In addition to a general redraft of the legislation to streamline procedures, our proposals include -

- a requirement that applicants notify the Patent Office of certain prior searches;
- increased access to documents on patent files;
- the abolition of opposition proceedings, and the introduction of an **ex parte** re-examination procedure on limited grounds;
- the introduction of contributory infringement;
- the encouragement of insurance schemes offering coverage against patent litigation expenses;
- transfer of jurisdiction in patent matters from the Supreme Courts to the Federal Court;
- that some operating costs of the Patent Office not be recoverable, and that the Office be given a greater measure of independence by giving increased powers of an administrative nature to the Commissioner of Patents; and
- raising educational requirements for patent attorneys, and public availability of the Institute of Patent Attorneys' Recommended Scale of Changes.

Internationally, we believe that Australia should continue to participate in the various treaties administered by the World Intellectual Property **Organisation**, having regard to the special needs of the Australian economy. At the same time, the Patent Office **should** continue to develop regional cooperation programmes, particularly in the **Asia/West** Pacific region.

Finally, with a **view** to monitoring the operation and effects of the system, we propose more effective measures requiring the provision, for statistical and general policy assessment **purposes**, of full details of patent licences and other interests affecting proprietorship of patents. More generally, the Patent Office should collect more data for those purposes from applicants and patentees, particularly concerning the use of patents after grant.

LIST OF RECOMMENDATIONS

A REVIEWING THE AUSTRALIAN PATENT SYSTEM

Patents in the Australian economy: we recommend -

- [1] that Australia continue to operate a patent system and to participate in the international patent system. (1.4)

B EXPLOITATION OF PATENT RIGHTS

Patents and **competition** law : we **recommend** -

- [2] with a view to proscribing patent-related conduct which has the purpose, effect or likely effect of substantially lessening competition, that the Trade Practices Act be amended to -
- i remove the exemptions of such conduct which are contained in section 51(3); and
 - ii alter the operation of sections 4D and 45(1)(a) (exclusionary provisions), 45A (horizontal price fixing) and 47(6) and (7) (third party tying) so that they apply in relation to such conduct subject to the lessening of competition test and not as per se rules. (3.3)
- [3] that the Trade Practices Act **be** amended to make the appropriate authorisation procedure, namely that which requires the Trade Practices Commission to be satisfied that the likely public benefit would outweigh the anti-competitive effect, available in relation to patent-related conduct falling within any of sections 45 (exclusionary and anti-competitive provisions), 45A (horizontal price fixing), 46 (monopolisation), 47 (exclusive dealing) and 50 (acquisitions). (3.3)
- [4] subject to implementation of our recommendations in relation to the Trade Practices Act, that section 112 of the Patents Act, which proscribes certain anti-competitive **conditions** if attached to the sale, lease or licensing of patented articles and processes, be repealed, leaving those matters to **be** regulated by the Trade Practices Act. (3.4)

Local manufacture, compulsory **licensing** and importation : we recommend -

- [5] subject to our other recommendations on this question, that the compulsory licensing and forfeiture provisions in sections 108 to 110 of the Patents Act be retained. (4.3)
- [6] that **an** additional discretionary power in the court to order compulsory licensing, but not forfeiture or "**patent misuse**" remedies, be introduced as a competition law remedy for dealing with patent-related conduct under Part IV of the Trade Practices Act. (4.4)
- [7] that in ordering the grant of a compulsory licence the court be given a discretionary power to order transfer of related know-how as part of the reasonable terms on which the licence is granted. (4.5)

- [8]** that jurisdiction in relation to compulsory licensing and subsequent forfeiture matters **be** vested directly and exclusively in the Federal Court, without provision for preliminary consideration of petitions by the Commissioner of Patents. (4.6)
- [9]** that compulsory licences, whether ordered in proceedings under the Patents Act or the Trade Practices Act, be available notwithstanding that the prospective licensee wishes to exercise the licence by importation. (4.7)
- [10]** that no change be made to the existing Australian law concerning **infringement** by importation and exhaustion of rights. (4.8)

C LENGTH AND BREADTH OF RIGHTS

Term of standard patents : we recommend -

- [11]** i that the present standard patent term of 16 years from the date of filing of the complete specification not be altered, either generally or in the case of particular industries; and
- ii that the procedures for granting of extensions of the terms of standard patents be eliminated in **toto**. (5)

Manner of manufacture : we recommend -

- [12]** that the present threshold test of patentability by reference to section 6 of the Statute of Monopolies and to the **expression "manner of new manufacture"** be retained, without specific legislative inclusions or exclusions. (6)

D FOSTERING NATIONAL INTERESTS

Standard and petty patents - a **two-tier** system : we recommend -

- [13]** i that novelty and obviousness for standard patents be determined against a prior art base consisting of -
- disclosures in recorded form publicly available anywhere in the **world;**
 - disclosures openly made, by oral communication, in Australia; and
 - what has been openly done and used in Australia;
- ii that, for these purposes (except where there is cross-referencing) it not be permissible to combine any two disclosures, or a disclosure and a use, or any two uses, save that in determining obviousness any single disclosure or use should be capable of being viewed in the light of the common general knowledge in the relevant field of art, at the relevant time; and
- iii that the common general knowledge in the art be treated as including **disclosures** in recorded form publicly available anywhere in the world which a skilled person working in the art at the time should reasonably have been expected to find, understand, and regard as relevant. (7.2)
- [14]** that prior claiming by earlier unpublished patent specifications be abolished as a ground of objection or invalidity for both standard and petty patents and replaced by a **"whole of contents"** approach in determining novelty but not obviousness. (7.3)

- [15] i that novelty and obviousness for petty patents **be** determined against a prior art base which is the same **as** that which we recommend for standard patents, except that only those **disclosures** in recorded form which are publicly available in Australia may be considered; and
- ii that combinations of disclosures **and/or** uses only be permissible **as** for standard patents; except
- iii that the common general knowledge **be** treated as including only those disclosures in recorded form which are publicly available in **Australia**, "available in **Australia**" here meaning capable of being accessed or otherwise directly available in Australia. (7.4)
- [16] that a petty patent **be** permitted to include up to 3 claims in dependent form. (7.4)
- [17] that the term of a petty patent continue to be 1 year from the date of sealing, with provision as **now** for extension for an additional period expiring 6 years from the filing date of the petty patent specification. (7.4)
- [18] i that divisional applications for petty patents not **be** permitted from standard **patent** applications, and vice versa;
- ii that the provisional specification procedure **be** available for petty as well as standard patent applications; and
- iii that grant of a standard patent not **be** permitted where there has previously been granted to the same applicant a petty patent for the same invention and having the same priority date, and vice versa. (7.4)

Provisional specifications : we recommend -

- [19] that the provisional specification procedure be retained. (8)

Innovation from employees' inventions : we recommend -

- [20] that the desirability of introducing a scheme giving rights or opportunities to employee inventors, including the right in some circumstances to take out a patent, be further studied. (9)

Patent information : we recommend -

- [21] that the Patent Office -
- i classify patent documents according to the Australian Standard Industrial Classification in addition to the International Patent Classification;
- ii upgrade storage, access and dissemination of patent information by computerisation of Patent Office data;
- iii continue to improve the quality of its searches under the Patent Cooperation Treaty and to make search results available to the public;
- iv continue promotional and educational programmes with a **view** to increasing public awareness of the source and value of technology information;
- v decentralise the patent information services **as far as possible**, including the provision of facilities for on-line access by users to the Patent Office data base and the international data base, in the Patent Sub-offices and elsewhere, and of more technical information officers in the State capitals; and

vi **continue** to prepare and make available, in general and on request, on a fee basis where appropriate, technology evaluation studies to assist Australian industry with industrial and **technological** development. (10.6)

- [22]** **i** that the **unproclaimed** amendment of section 34 of the Patents Act which relates to lodgment of abstracts be proclaimed and implemented, so **as** to require applicants for letters patent to provide a fair summary in plain English of the contents of the patent specification, not to affect interpretation of the specification; and
- ii** that the Patents Act be amended to ensure that any published patent specification held by the Patent Office, including any drawing it contains, may **be** freely copied or reproduced without infringing any copyright in that specification or drawing or in any work of which it is a substantial reproduction. (10.6)

E **EFFICIENT OPERATION AND ADMINISTRATION**

Procedures generally under the legislation : **we recommend -**

[23] that the patents legislation **be** reviewed and completely redrafted to streamline procedures, particularly with a view to eliminating unnecessary steps and procedures, avoiding special categories, and establishing appropriate sanctions for non-compliance. (11)

Search and examination : **we recommend -**

[24] that the present system of examination on request and of combined search and examination **be** retained. (12.1)

[25] that the present system of modified examination **be** abandoned. (12.2)

[26] that applicants be obliged at the time of filing a request for examination to notify the Patent Office of the results of all searches carried out previously by patent offices, official authorities, or other prescribed **organisations**, in respect of the invention or corresponding applications in other countries, and subsequently to update that notification to the date of acceptance. (12.3)

[27] that both novelty and obviousness of an invention be matters for report by the examiner. (12.4)

[28] that standard and petty patent application files **be** confidential until the date on which they become open to public inspection, but that after that date, public access **be** granted to all documents contained on patent files consistently with the principles and subject to the exemptions contained in the Freedom of Information Act. (12.5)

Challenging grant or validity : **we recommend -**

[29] that the pre-grant opposition procedure be abolished. (13.1)

[30] that jurisdiction to hear post-grant revocation proceedings not be transferred to the Commissioner but remain in the courts. (13.2)

- [31] that a procedure be introduced for **ex parte** re-examination by the Patent Office, with the following features:
- i to be available for 3 months after acceptance of an application and at any time after grant of a **patent**;
 - ii the grounds to be limited to matters of novelty and obviousness based on published documents or recorded information;
 - iii to be available at the instance of the applicant or patentee, a third party, or the Commissioner, except if infringement or revocation proceedings are or have been commenced in a court, in which case the court may order **re-examination**;
 - iv the Commissioner to have power to grant, refuse, uphold, or cancel a patent, direct amendments, or **present** his findings to a court hearing a revocation action, as the case may **be**; and
 - v the applicant or patentee, but not third parties, to have an **express** right of appeal from the **Commissioner's** decision, third parties having recourse to the courts only by way of revocation proceedings or as otherwise provided by law. (13.3)

Enforcement of patents : **we** recommend -

- [32] that patents should have territorial operation consistent with other Australian legislation concerning sovereignty and with relevant international agreements. (14.1)
- [33] that in general the supply of goods whose only use would infringe a patent, or which are accompanied by a positive inducement for the ultimate consumer to perform actions which would innocently or **knowingly** infringe a patent, should itself be an infringement of the patent. (14.2)
- [34] that the Government encourage insurance companies to offer appropriate schemes enabling Australian enterprises to obtain insurance coverage against **patent** litigation expenses in Australia and in other countries. (14.3)

Jurisdiction of courts and tribunals : **we** recommend -

- [35] i that the jurisdiction in matters of patent law currently vested in the Supreme Courts be transferred exclusively to the Federal Court of Australia; and
- ii that consideration be given to vesting in the Federal Court exclusive jurisdiction in all substantive matters arising **under** intellectual property law (including trade marks, designs and copyright). (15)

The Patent Office : **we** recommend -

- [36] that the Patent Office not be required to recover its operating costs for those of its services which are in the nature of a service to the public rather than a service to direct users of the system. (16)
- [37] that the Commissioner of Patents be granted, under the Patents Act, the powers of a Permanent Head. (16)

Patent attorneys : **we** recommend -

- [38] that the minimum technical qualification for a patent attorney **be** a **Bachelor's** degree, **post-graduate** Diploma, or other qualification granting admission at the corporate level to an appropriate professional institution. (17.2)

- [39]** that the Institute of Patent Attorneys of Australia and the Patent Office, in conjunction with the Board of Examiners of Patent Attorneys, investigate -
- i** the feasibility of the instruction and examination of the 3 subjects which form the intermediate part of the patent attorneys' examination being conducted at a recognised tertiary institution;
 - ii** the inclusion of an additional subject designed to provide candidates with general legal skills;
 - iii** the removal of the present exemptions -
 - from the intermediate level allowed to legal practitioners, except where equivalent subjects have been taken;
 - from 6 months of the 12 months in-service training allowed to examiners from the Patent Office; and
 - from 2 subjects of the final examinations allowed to UK chartered patent agents; and
 - iv** the implementation of an exchange programme between trainee patent attorneys and examiners, and a continuing education programme for those who have qualified. (17.2)
- [40]** that the Institute of Patent Attorneys **be** required to make its Recommended Scale of Charges available on request to any interested person. (17.3)
- [41]** that current proposals to extend the disciplinary powers of the Commissioner in relation to patent attorneys and to establish an independent disciplinary tribunal **be** pursued. (17.4)
- [42]** that no change **be** made to the present scope of patent 'attorney practice. (17.5)

F THE PATENT SYSTEM AT HOME AND ABROAD

International **roles** and relations : we **recommend** -

- [43]** that Australia continue to participate in the various treaties administered by WIPO, having regard to the special needs of the Australian economy. (18)
- [44]** **i** that the Australian Patent Office continue to develop regional cooperation programmes, particularly in the **Asia/West Pacific** region, in the following three main categories:
- advising and training of technical staff and administrators in industrial property offices;
 - providing advice and training to industrial property offices to better access and use the technology information contained in patent **documents**; and
 - development and use of common services with the long range objective of the establishment of regional arrangements which would serve all the participating countries concerned; and
- ii** that the Ministers for Science and Technology and Foreign Affairs consult with a view to ensuring suitable Government funding for these activities on the part of the Patent Office. (18)

Monitoring operation and effects : we **recommend** -

- [45]** **i** that full particulars of all interests affecting the proprietorship of a patent, including any licence, be required to **be** lodged with the Patent Office, for use for statistical and general policy assessment purposes;

- ii** that only certain appropriate **minimum** particulars be entered on the Register and be open to public inspection;
 - iii** that all of the information provided and not entered on the Register be treated as received and held in confidence and subject to privilege, and to the extent necessary for this **purpose**, that the application of the Freedom of Information Act be excluded; and
 - iv** that if particulars are not lodged as required within 3 months after the **date** of the instrument, **then** damages for infringement will not be recoverable for infringing acts occurring between the date of the instrument and the date on which the requisite particulars are lodged.
- (19)

[46] that the Patent Office introduce procedures to collect more data from applicants and patentees, particularly concerning the use of patents after grant, in a form which facilitates analysis for statistical and general policy assessment purposes, the **information** so collected being treated as received and held in confidence and subject to privilege. (19)

PART A

REVIEWING THE AUSTRALIAN PATENT SYSTEM

1 PATENTS IN THE AUSTRALIAN ECONOMY

1 Introduction

There is a growing recognition within Australia that the nation's future prosperity will depend upon its ability to innovate, take advantage of technological change, and develop export markets in skill-intensive goods and services. This implies acceptance of the need for a move away from **inward-looking** protection-oriented policies to **outward-looking** competition and innovation-oriented policies. By conferring property rights in new technology, the patent system can serve the interests of the entrepreneur wishing to break into new or established markets in Australia or abroad, but it can also further entrench the position of established industry. Moreover, over 90% of Australian patents are granted to foreigners, and many have been used to protect export markets in Australia rather than for local **manufacture**. Our task in this review is to seek better to adapt the Australian patent system to foster innovation, at the same time bearing in mind the need to safeguard the interests of the Australian consumer.

Australia's patent law was inherited from Britain through the colonies at the time of federation, and Australia has always been a supporter of the international patent system in the creation of which Britain played an important part. The essence of the system is embodied in the Paris Convention for the Protection of Industrial Property (1883) which lays down certain principles to be followed by member countries. The provisions of the Convention have come **under** increasing attack during the past decade by developing countries which see it as serving the purposes primarily of the technology exporting nations.

The economic significance of patents has at times been obscured by a haze of assumptions about rights and rewards for inventors, special pleading by those directly involved, and a plethora of legal procedures and criteria in the Patents Act. Patents are commonly assumed to confer social benefits arising from greater incentive to industrial innovation and from disclosure of inventions, but there are social costs which may be associated with the monopoly power which patents confer - for example, higher prices and restricted outputs.

A patent confers upon an inventor the right to exclude others for a limited period (16 years in the case of Australia) from making, using or selling the invention claimed. This is a property right in the sense that it can be sold, assigned or licensed to others by the inventor. Like other property rights, its use is subject to limitations designed to safeguard the public interest by, for example, restricting certain anti-competitive activities. Also with the public interest in mind, patent applications and specifications are examined in the Patent Office to ensure that, as far as possible, patent monopolies are only granted for "**inventions**" that were not known or available to others before the priority date of the application. In due course the application documents are made public. Once the application has **been "accepted"** by the Office, but before a patent has been granted, an opportunity is given to others to oppose grant on a variety of grounds set out in the Patents Act, including obviousness of the invention. After grant, a patent may be enforced in an infringement action and the validity of a patent may be challenged in a revocation action in

the courts. Throughout the life or "**term**" of a patent, renewal fees must be paid annually to keep the patent in force, and, in exceptional circumstances, a patentee can apply to the court to extend the life of the patent beyond 16 years.

In 1979, a second type of patent was introduced. This is the "**petty** patentⁿ which is distinguished from the "**standard** patent^v by its simple and rapid examination procedure, shorter term (up to 6 years) and a restricted number of claims. **It was** intended that the petty patent scheme would particularly suit the needs of those **Australian** inventors with relatively simple inventions.

1.2 The economic perspective

Various justifications have been claimed for national patent legislation. It has been viewed, for example, as giving legal effect to the natural rights of inventors, as rewarding inventors for their efforts, as a contract between the State and individuals giving limited monopoly rights in return for the disclosure of information, and as a means of promoting the national interest by encouraging innovation. Our Terms of Reference take the last-mentioned perspective; we must examine ways in which the patent system might enhance Australia's long term economic **prosperity** through technological innovation; we must **be** concerned with the development and adoption of new products and techniques by business and industry (which is innovation) and not merely the generation of ingenious ideas (which is invention).

This perspective is concerned both with the efficient allocation of resources and with attempts to gain benefits from new products and new processes that technological change can bestow. It is a national perspective rather than sectoral; long-term and broad-brush rather than short-term and case-specific. A similar emphasis was given by the Senate Standing Committee on Science and the Environment when it stated: "**The** primary function of patent legislation should be to serve **as** an instrument of national economic policy aimed at the stimulation of indigenous industrial innovation not **as** a means for giving effect to the 'natural rights' of **inventors**".(1)

The willingness of the majority of countries to operate such a policy instrument as the patent system is a consequence in part of historical circumstances and in part of peer pressure arising from increasing internationalisation of the patent system. But it stems also from a belief **that**, from a national viewpoint, too little is invested in the generation, exchange and **utilisation** of new technology. The reasons for this underinvestment are widely held to **be** -

- the uncertainty of payoff from R&D and innovative activity;
- the limited ability of the **inventor/innovator** to appropriate profits arising from the use of the new knowledge generated; and
- the advantage that imitators **gain** if they can use new technology without sharing in its cost of production - the so-called "free rider"ⁿ problem.

Technological innovation is **assumed** to lead to greater economic and social welfare. Patents are **intended** to stimulate such innovation by offering the possibility of greater profits than could have been obtained if open competition existed. But the benefits gained from innovation **fostered** by the existence of the patent system must **be** balanced against the costs to society caused by the restrictions which patents place upon the use of the inventions to which they relate. **For** while the purpose of the patent system is to provide an incentive to innovation, patents also create entry barriers which prevent or retard the diffusion of innovation by imitation; that is to say, a patent confers a degree of monopoly power which has inherent anti-competitive effects. It has both social benefits and social costs.

The intended benefits of the patent system arise from the incentive effects on investment in innovation and from disclosures of knowledge, subject to the qualification that social benefit cannot be attributed to a patent where the same development and disclosure would have taken place without patent protection. However, it cannot be expected that the benefits will operate across the board, in every case, or in every industry. The patent system does not, apart from a general selectivity for **manufacturing** industry, discriminate between industries and, as a result of international treaties, the scope for discrimination between nationals and foreigners is restricted.

Although the monopoly power made available **by** the patent system may operate to induce innovation and disclosure, it must be borne in mind that society pays a price in terms of economic efficiency. The costs are the social costs which may arise from a monopoly - higher prices, restricted outputs, and the losses, from a national viewpoint, when the benefits of the monopoly accrue to foreigners - plus the "**dead weight**" direct costs of administering the system.

Innovation and the possession of monopoly power interact in a number of **ways.(2)** Existing monopoly power can be extended to new products by means of established reputation or distribution arrangements. Sales of new products may be tied to existing product lines. Many other market factors may also have anti-competitive effects - for example, control over raw material supplies, use of advertising, or the achievement of substantial economies of scale or of a **position** of technological dominance. Such conditions of imperfect competition may discourage innovation by others, and patent rights may further entrench the position of those who already enjoy a degree of monopoly power in the market place.

Only in a competitive market economy where there are actual or potential innovators and imitators can rivalry take place, patent rights stimulate additional innovation, and disclosed technology become building **blocks** in further development. While the commercial uncertainty provided by a competitive environment can act as a spur, it can also discourage the necessary investment in innovation - an effect which patent rights can mitigate by providing a measure of protection against imitators. **But** this depends upon the confidence which companies and inventors have in obtaining and enforcing patent rights. That depends in turn on factors such as standards of search and examination; the performance of the Patent Office, the courts, patent attorneys and the legal profession; the business expertise and financial resources possessed by or available to the patentee; and the commercial quality of the innovation.

Participation in the international patent system, established and maintained under the Paris Convention, adds a further dimension with special importance for a country such as Australia. It is claimed that participation, and the consequent availability in Australia of patent protection for foreign inventions comparable to that provided in other Convention countries, is a vital factor in the encouragement of foreign capital investment and in relation to the licensing and other transfer of technology into Australia. **But** while there are benefits of this nature, costs are also involved which may outweigh the benefits depending on the circumstances.

The costs of participation include the higher cost of patented technology compared to patent information which is freely available to non-participants, the exclusion of **imports** of cheaper infringing products, the inability of Australian enterprise to manufacture, sell and export imitations, and restrictions on the use of imported technology in Australia.

The assurance of equivalent privileges in other countries **party** to the Paris Convention is a purported benefit of membership of the Convention. **Possible** advantages particularly associated with participation include the protection of exported **goods** covered by patents, of exported technology (including licences), and of investment abroad. But the advantages which might be gained must be distinguished from the advantages which are in fact gained. The degree of benefit depends among other things on the extent to which Australians patent overseas.

13 The "national interest"

The task which is set for the Committee by the Terms of Reference is, from the viewpoint of the Australian national interest, to evaluate the patent system **as** it exists in the Australian context and to determine whether and in what ways it should be changed so as to meet economic objectives. This is a complex task requiring interpretation of the "national interest", criteria of performance of the patent system, and facts about the operation of both the system and the economy. Debate about the patent system has not always measured up to this standard, especially the need to apply objective economic criteria.

Interpretation of the national interest and development of criteria of performance are interwoven. Criteria that have been considered include economic efficiency, the promotion of invention, the promotion of innovation, technological advance, administrative simplicity, historical continuity, international conformity, national self-sufficiency, and impact on employment. **As** in any multiple criteria decision, there is a need for a means of reducing such a list to a manageable dimension.

In this context, Johns has observed

"[E]conomists tend to employ rather simple criteria. That is to say, they tend to judge the result of any system by the contribution it will make to the increase in the national income or **gross** national product of a country ... So we judge the patent system in exactly the same way. We say: What possible benefits can accrue in **terms** of national income of Australian residents? Of course when you get down to specifics, that becomes a very complex question, one element of which is dependent on just what stimulus it provides to new investment in technology, research and development expenditure, and so **on.**"(3)

It should also be observed that the individual interests of those involved in the conception, development, marketing, and eventual purchase and use of inventions or their products, do not necessarily coincide. Inventors, producers and consumers have certain separate interests which might be reflected in or furthered by the structure of the patent system. These were summarised in the recent Nicholson Report in the UK:

"[T]he inventor, insofar as he is not the producer:

- wants the highest price possible for his invention and the credit for it, even if he may not be aware of its ultimate commercial potential.

The producer:

- wants ready access to new inventions which he can **incorporate** in his products in order to gain market advantage;
- wants to hold on to this advantage **as** long as **possible** against **competitors** capable of using the same invention;
- may want to delay exploitation of an invention until a moment of his **own** choosing (or even indefinitely).

The **consumer** on the other hand:

- wants a continuing flow of improved products at the lowest **possible** prices;
- to that end wants a wide dissemination of the state of the art on existing products and the potential for future ones so that continued product development is stimulated and **consumer** choice guaranteed;
- may not mind if the products derive from copying others' **work".(4)**

Ultimately, however, inventors, producers and consumers will have a common interest as citizens in economic prosperity and growth.

These considerations suggest that we can evaluate the patent system by seeking to judge the effect it will have on the increase in the national income or *gross national product* of the country. Imprecise though it will be in many ways, this perspective does strive for the application of a legitimate basic economic criterion from which it is possible to develop a manageable approach to reform.

At the same time, **allowance does** need to be made for equity aspects, for not everyone benefits uniformly from the operation of the system. One obvious illustration is that account must be taken of the fact that the majority of the participants (as applicants and patentees) in the **Australian** patent system are foreigners. Where **national** and global interests diverge, there is a need to value the **welfare** of nationals more heavily than that of foreigners.

L4 **Patents** in Australia's economic circumstances

In attempting to determine whether the Australian patent system adequately contributes to the national income **by** stimulating innovation, **Australia's** national and international circumstances must **be** considered and it must be asked whether we should continue to **be** party to the Paris Convention or even to retain a domestic patent system. While the present unhealthy state of Australian manufacturing industry cannot be ignored, weight must also **be** given to national aspirations for a more significant role in the region, more open trading conditions and a greater role in **technology-based** exports.

In considering what stimulus to investment in innovation is provided by the patent system, it must not **be** forgotten that the Australian Government, like that of **most** other nations, is consciously trying to promote innovation in other and more direct ways. These include research in government laboratories, the IR&D Incentives Scheme, tax concessions, the provision of venture capital, procurement policy, export development grants, and tariffs and **bounties.(5)** Such measures may be less important than the broader dimensions of national economic policy which, by affecting taxation, exchange rates, interest rates, employment, and demand, set the climate for investment in innovation. Moreover, too much security may in fact inhibit innovation if it removes or lessens international competition or weakens the pressures of significant changes in costs. It can **be** argued that the "**slow progress**" of the Australian economy is attributable to preoccupation, in a sheltered environment, with "**responding** to developments in the rest of the world, instead of trying to anticipate developments and to promote the production of those commodities which in the future we shall be able to produce in competition with other **countries".(6)**

Given the diversity and complexity of modern industry and the array of policy instruments employed at any one time, it is not surprising that such economic assessments as have been attempted of patent systems in other countries have been inconclusive, and **evidence** for change is difficult to assess. **Machlup's** conclusion is often cited:

"If we did not have a patent system, it would **be** irresponsible, on the basis of our present knowledge of its economic consequences, **to** recommend instituting one. But since we have had a patent **system** for a long time, it would be irresponsible, on the basis of our **present** knowledge, to recommend abolishing it."(7)

It is important to **observe**, though, that **Machlup** then immediately added:

"**This** last statement refers to a country such as the United States of America - not to a small country and not a predominantly nonindustrial country, where a different weight of argument might well suggest another **conclusion**".(7)

The following **remarks** by **Penrose** develop this point:

"**Any** country must **lose** if it grants **monopoly** privileges in the domestic market which neither improve nor cheapen the goods available, develop its own productive capacity nor obtain for its producers at least equivalent privileges in other markets. No amount of talk about the 'economic unity of the world' can **hide** the fact that some countries with little export **trade** in industrial **goods** and few, if any, inventions for sale have nothing to gain from granting patents on inventions worked and patented [abroad] except the avoidance of unpleasant foreign retaliation in other directions".(8)

After attempting to take account of Australia's circumstances, a research study by **Mandeville**, Lamberton and Bishop, commissioned for the Committee, concluded:

"While ultimately a matter of judgment, this study leaves little room for doubt that the **benefit/cost** [margin] of the patent system in Australia is negative, or at the very best, in balance. However, this conclusion does not necessarily imply an economic justification for abolishing the patent system. The **costs** and benefits of an institution need to be distinguished from the costs and benefits of abolishing that institution. In the perspective of the national economy, the economic effects - both costs and benefits - of the patent system in Australia are quite **modest**. However, the costs of unilateral abolition of the patent system to Australia's international commercial relations could possibly be much larger ...".(9)

Australia is a small high-income economy with a local market of limited size and industries that are highly **concentrated**. The development of its **manufacturing** has been much dependent **upon** direct foreign investment for both capital and technology, while the conditions of technology transfer to Australia have often included prohibitions on export.

The extent of structural change in manufacturing has been less than in most OECD countries. **Low** and declining private sector expenditure on R&D suggests failure generally both to initiate indigenous innovation and to adapt imported technology. There has been heavy reliance on research performed by government with consequential problems both in the setting of R&D objectives and the later transfer of research results to the private sector.

There is little **export** of manufactured goods. In broad terms Australia's comparative advantage is seen to lie mainly in natural resources availability and geographic location. (In the latter respect, it is noted that a significant **proportion** of existing exports of manufactured goods goes to New **Zealand** and the Pacific Islands).

These various considerations are consistent with the suggestions made by **Mandeville, Lamberton** and Bishop that the existence of the patent system in Australia has contributed little to widening the range of, improving, or cheapening the goods available, improving productive capacity or stimulating **export** market development. Generally, the history and characteristics of the Australian economy, singly and in combination, with heavy emphasis upon protection, foreign investment and technology importation, do not provide encouragement for the view that there are **substantial** benefits attributable to the operation of the Australian patent system, while actual and potential costs can be more easily identified.

As we have already observed, Australia's patent system should not be assessed independently of its interaction with the international patent system. Withdrawal from the Paris Convention would be a consequence of abandoning the patent system altogether. On the other hand, it would be possible to make major changes to the Australian law, if that were considered to be desirable, while continuing to remain a member of the Convention and conforming to its broad terms.

The Convention has been perceived as benefiting countries with large, highly industrialised economies. Having both local development and **export** markets to foster and protect, such countries may certainly stand to gain, both at home and abroad, from retention, and indeed, wider adoption, of patent systems **observing** the principle of "**national** treatment". Attempts by the "**Group of 77**", over the last decade or so, to secure amendments to the Paris Convention to bias it more towards the economic interests of developing countries, have been unsuccessful. More recently, a wider divergence of interests among **member** countries of the Convention has been emerging. Different countries have different economic needs and priorities. Australia **must** assess its interests from a position intermediate between the industrialised and less developed nations.

No doubt, in Australia's case, participation in the international system provides a means of protection abroad for Australian goods, services and investment. However, it also entails the obligation to treat foreign applicants on an equal footing with domestic applicants. Notwithstanding the compulsory licensing provisions of the Australian Patents Act, many patents granted to foreigners in Australia (for example, relating to agrochemical and pharmaceutical products) frequently are utilised not to support the establishment of local enterprises or export trade but rather as non-tariff barriers to provide protection for imported products.

These considerations invite one to question Australia's continued **participation** in the international patent **system** which, it could be argued, should be dependent upon an examination of the costs and benefits arising from continued participation compared to those which would **flow** from withdrawal.

On the other hand, it is extremely difficult to know what effects would result from withdrawal from the international patent system. Clearly there would be much concern and no doubt threats of reprisals of one sort or another from foreign **countries** and Australian interests alike. These would carry political weight; indeed, **withdrawal** would probably be politically impossible. Whether or not other nations would refuse to grant patents to Australians, there would certainly be a psychological effect upon the willingness of foreign firms to supply technology to Australian firms. They would point to higher commercial **risks** as justifying greater restrictions on what technology could be made available and a greater price for what was made available, at least in the short to medium term. Conversely, Australians would become less patent conscious and less able to exploit foreign **patents** to their own advantage. Indeed,

strong representations were **made** at the Commercial Implications Seminar (see Appendix C) by **small** Australian firms who argued that patent protection **was** most important to their ability to penetrate large foreign markets with innovations originating in Australia. No submission received by the Committee proposed abolition of the patent system in Australia or withdrawal from the international patent system.

As indicated in the passage quoted above from Mandeville, **Lamberton** and Bishop, the transition costs of withdrawal from the patent system by Australia need to be distinguished from the economic effects of the continued existence of the system. While it appears that the latter effects - both costs and benefits - are currently quite modest, the transition costs of withdrawal **might** be much larger.

[1] WE RECOMMEND that Australia continue to operate a patent system and to **participate** in the international patent system.

2 APPROACH TO REFORM

21 Australia's aspirations in **innovation**

While Australia has made poor use of the patent system in the past and its overall effects may not have been **positive**, we must take into account aspirations to become a significant exporter of skill-intensive goods and services. Given this situation, the most critical element may be Australia's potential capacity to become technologically competitive.

Australia is experiencing markedly changing investment and trading relationships with other **countries**, more especially those of Asia and the Western Pacific region. Given these dynamic conditions, it must be asked seriously whether **Australia's** comparative advantage is restricted to natural resource availability and location. Present aspirations are for a future in which the growth of technology-intensive industries will lead the way toward a major growth of innovation-based exports. Opportunities are also seen for **up-grading** the value of Australia's present exports of raw materials by means of process and other innovation. If these aspirations should be fulfilled, a more favourable **benefit/cost** margin from the operation of the patent system would eventuate.

This prospect does need to be evaluated against a stream of official reports and recommendations favouring expansion of innovation-based exports which as yet have not produced any major structural change. Moreover, alternative policy instruments of a more selective kind than the patent system are available.

However, recent Australian export statistics indicate that the share of natural resource **exports** has declined while that of technology-intensive exports has **increased**.(10) While the change is of **modest proportions** and some uncertainty attaches to what "technology-intensive" means in the Australian situation, an outward- and forward-looking policy will seek early and maximum benefit from this possible shifting in the basis of Australia's comparative advantage. To some extent it may be reinforced by **locational** circumstances and its future may well be bound up with small and medium business less dominated by foreign investment. It appears that success to date has come in **middle** rather than **high technology**,(10) and in adaptation in situations in which there are links with past experience as in mining and agriculture.

Public and industrial awareness of technology issues has increased dramatically since the time when we first undertook the task of preparing this Report, and positive government measures are now being taken to promote technological development.

22 General approach to reform

The policy approach to review and change should be to seek to **optimise** the net benefits arising from the operation of the patent system in the national interest to the extent **possible** consistent with international conventions, having regard to the particular circumstances of the Australian economy. We should seek to modify the Australian patent laws, adjusting the length, strength and breadth of patent rights so as to **maximise** the social benefits and to **minimise** the social costs to Australians.

More specifically, this implies seeking -

- to gain increased benefits for Australians by fostering indigenous innovation, and **utilising** the international patent system in developing export markets to improve **Australia's** international competitive position;
- to reduce **unnecessary** social costs including those resulting from undesirable anti-competitive conduct involving patents; and
- to improve the efficiency of the administration of the patent **system** with consequent reduction of direct costs.

It needs also to be **recognised** that the patent system is a blunt instrument of industrial policy and cannot easily be fine-tuned to take account of particular cases.

The patent system seeks to relate the patentee's extraordinary return to the social value of the invention only by the rudimentary approach that the greater the demand for the **patented** invention, the greater is likely to be the **patentee's** remuneration. It must then be accepted that there will be cases where grossly excessive monopoly profits will be made; where socially desirable inventions will not occur because patents are not obtainable, or, if obtainable, will not offer sufficient security or reward prospect to induce the innovation; where patents will be employed to further monopolistic or other economically undesirable ends; and where socially undesirable innovations will be stimulated and related social costs exacted. Such effects should be seen not so much as failures of the system but **as** imperfections which should be **minimised** as far as **possible**.

Given this situation, the only practicable method of pursuing the approach to reform we have arrived at in this Part is to look at particular proposals and attempt to **assess** overall, and partly from our own experience and intuition, whether the effects of change in the social **cost/benefit** margin resulting from their implementation are likely to be adverse or favourable.

In the succeeding Parts of the Report, we set out recommendations arising out of the conduct of the review directed by our Terms of Reference, along with such discussion and reasoning as we see necessary for inclusion in a report of this nature. We do not attempt to **deal** exhaustively with all matters which we have considered or to record exhaustively all the reasoning which has led us to the recommendations we make. Many issues on which we feel no recommendation is warranted are not mentioned at all. Others on which recommendations are made are nonetheless only briefly discussed.

We have not seen it as our function to confine ourselves, as might a commission of inquiry, to consideration of evidence presented and conclusions reached from that evidence. On the contrary, as an expert advisory committee, we have seen it as appropriate to have regard to our own knowledge and experience, and to apply our own expertise, where required, whilst at the same time considering and taking account of all available evidence, materials and information.

In the latter connection, we called for submissions from interested persons and the general public. We received and made public 90 submissions (see Appendix A).

We were assisted by being able to commission or jointly commission a small number of studies by academic researchers. These included studies by **Mandeville, Lamberton** and Bishop on economic effects; by **Carstairs** and **Welch** on outward foreign licensing; by **Macdonald** on individual inventors; by **Dufty** on patentability, novelty and obviousness, and infringement and the rights of third parties; by **Bart** on the interface between anti-trust and intellectual property law; and by **Campbell** on jurisdiction in patent matters. Details of these commissioned reports are set out in Appendix B, but in the remainder of the Report we refer to them by the authors' names only.

We also conducted or **cooperated** in conducting seminars on the **economic** implications of patents, the Patent Cooperation Treaty, petty patents, and commercial implications of patents. Details of seminars are set out in **Appendix C**.

The evidence obtained by all of these means was valuable but, of course, it fell far short of what would be required to provide an acceptable framework for judgments based strongly on empirical data.

23 **Framework of the Report**

Having arrived at the basic conclusions and resulting methodology set out in this Part, we turn in Part B to the two other policy areas which require consideration in conjunction with the main policy thrust of the patent system. These involve equity considerations concerning the **exploitation** of patent rights and which, depending upon how they are assessed, may materially affect the approach to reform of the patent system itself. The first of these, canvassed in Section 3, is the matter of patents and competition **law**. We examine how competition law is to operate in relation to the patent system, looking particularly to possible safeguards against anti-competitive use of patent rights. The second is the recently much ventilated question of the policy approach to be taken to local manufacture or "**working**", on the one hand, and importation on the other, and the related issues of compulsory licensing and forfeiture for "patent misuse". These matters are dealt with in Section 4.

We turn next to the features of the patent system itself and set out recommendations **following** from the conclusions reached in Parts A and B on the basic policy issues. We take first, in Part C, the two central features of length and **breadth** of rights: how long should patents last (or what should be the term of standard patents) (Section 5), and what things should be patentable (manner of manufacture), (Section 6).

In Part D, we look at features which in addition to having other **benefit/cost** implications, appear to us also to have relevance from the viewpoint of fostering national interests by biasing the operation of the patent system in favour of Australians. These include the differences between standard and petty patents (Section 7), provisional specifications (Section 8), innovation from employees' inventions (Section 9), and the **utilisation** of patent information (Section 10).

Proposals for achieving direct cost savings by improved and more efficient operation and **administration** of the patent system form the subject of Part E. Under this heading we consider procedures generally under the legislation (Section 11), **search** and examination of patent applications (Section 12), procedures for **challenging** grant or validity currently represented by opposition and revocation proceedings (Section 13), the enforcement of **patents** in infringement proceedings (Section 14), the jurisdiction of **courts** and tribunals

which hear infringement and revocation proceedings as well as appeals from Patent Office decisions (Section 15), the **administration** of the Patent Office (Section 16), and qualifications, fees, discipline and professional practice of patent attorneys (Section 17).

Finally, Part **F** looks to the future of the patent **system** abroad and at home. In Section 18 we **discuss** Australia's **international roles** and relations in the international patent system and particularly in the Asia and West Pacific region. Section 19 looks at the need for monitoring operation and effects of the system with a view to collecting data on which future policy decisions may be made.

PART B

EXPLOITATION OF PATENT RIGHTS

3 PATENTS AND COMPETITION LAW

3.1 Introduction

It is impossible to make any meaningful evaluation of the benefits and costs associated with the operation of the Australian patent system without also taking into account the operation of competition law. In this context, competition law means national laws which proscribe or regulate conduct that is perceived to be actually or potentially anti-competitive.

McGonigal has described the economic goal of competition law as being -

"... to establish a competitive market place in which there will be pressures on **participants** to make the maximum **use** of available resources and to search for more efficient management, production and marketing processes or to develop new and better **products**".(11)

The best-known competition law is the US anti-trust laws, from which the national competition laws of most other countries largely derive (and for this reason sometimes described as the **US's** most successful **export**).

Part **IV** of the Australian Trade Practices Act 1974 embodies most of the competition law which applies in Australia. Generally (**so** far as relevant in the present context) conduct is proscribed only if and where, on investigation and evaluation of its economic consequences, it is found -

- i to have the purpose, or be likely to have the effect, of substantially lessening competition (the "**lessening** of competition" test); or
- ii to involve exercise of monopoly power **by** a dominant **firm** for the purpose of precluding market entry, eliminating or **substantially** damaging a competitor, or otherwise deterring **competitive** conduct.

However, Part **IV** also includes some provisions under which specified descriptions of conduct are proscribed per se ("**per se** rules"). The rationale of per se rules was recently summarised by the US Supreme Court, thus:

"**Per se** rules ... require the Court to make broad generalizations about the social utility of particular commercial practices. The probability that **anticompetitive** consequences will result from a practice and the severity of those consequences must be balanced against its **procompetitive** consequences. **Cases** that do not fit the generalization may arise, but a per se rule reflects the judgment that such cases are not sufficiently common or important to justify the time and expense necessary to identify them. Once established, per se rules tend to provide guidance to the business community and to minimize the burdens on litigants and the judicial system of the more complex rule-of-reason trials ... but those advantages are not sufficient in themselves to justify the creation of per se rules. If it were otherwise, all of antitrust law would be reduced to per se rules, thus introducing an unintended and undesirable rigidity in the **law**".(12)

3 2 Interaction of patent law **and** competition law

The **inter-relation** between patent law and competition law appears to be widely misunderstood. On the one hand, it has been suggested that competition law must bow wholly to patent law, because any constraints applied to the freedom of patentees to exploit, as they think fit, the exclusive rights which patents confer will detract from the fullness of the incentive to innovation which patent law is **designed** to promote. Conversely, it has been suggested that because patent law promotes monopoly, it is irreconcilable with competition law which promotes competition, and therefore that patentees must be limited, wherever **possible**, in the exploitation of their patents.

As Bowman wrote of the situation in the US:

"Antitrust law and patent law are frequently viewed as standing in diametric opposition. ... How can there be compatibility between antitrust law, which promotes competition, and patent law, which promotes monopoly?"(13)

Bowman concluded that this conflict was to a large extent illusory:

"In terms of the economic goals sought, the supposed opposition between these laws is lacking. Both antitrust law and patent law have a common central economic goal: to maximise wealth by producing what consumers want at the lowest cost. In serving this common goal, reconciliation between patent and antitrust law involves serious problems of assessing effects, but not conflicting purposes".(14)

The problems and the issues which arise in assessing the relevant effects were reviewed at the Economic **Implications** Seminar by **McGonigal** (whose paper involves a consideration of relevant economic literature) and also in the commissioned report by **Baxt**. These **works** have been published and it is sufficient for the purposes of this Report to refer to them without recanvassing all that is involved, but without implying that we agree with all that they contain.

It is appropriate, however, for the Committee to indicate, shortly, the views on its part which **underlie** the conclusions and recommendations in this Section.

i While the patent **and** competition laws have **similar** overall economic goals, they concentrate on different aspects. Patent law stresses stimulation of innovation in order to generate more of what consumers want, at the cost of extraordinary profits. Competition law concentrates on achieving the lowest cost by eliminating extraordinary profits at the risk of inhibiting investment in innovation. There can therefore be, as Bowman indicated, serious problems of assessing and sorting out the effects.

The way this should be done is by recognising that neither competition in itself, nor innovation in itself, is an absolute goal. Each is a valid objective only in so far as it contributes positively to the overall economic goal of **maximising** production of what consumers want at the lowest cost, which we equate with the national interest.

This approach involves the need to avoid, so far as possible, choice of one law over the other. Rather, each law should, so far as practical, accommodate the legitimate operation of the other, so that they are both consistently directed to the same common overall economic objective.

ii Patent rights **are** not **necessarily anti-competitive** in nature. Inasmuch as the availability of patent rights may increase incentives to develop new products and **processes** and **bring** them to the market place, the effect of the patent law may be pro-competitive. That is, patent law may foster **competition** by encouraging invention, facilitating new entry, and publishing information, so increasing efficiency in the long term at the cost of some short term distortion.

Moreover, patents are monopolies only in relation to particular inventions. Ordinarily, patented products and **processes** will compete in a market with rival **goods** and services. The patentee will have a right to try to prevent direct substitution of identical products and processes but there will nonetheless be some demand substitution. The patentee is therefore seldom able to use the patent rights to regulate output and determine prices free from the constraints of **competition**.

A patent creates an advantage which will give to the patentee a degree of competitive edge or leverage capable of being utilised in the pursuit of "**rivalrous behaviour**" in the market place, much in the same way as other conditions and factors, such as capital resources, brand reputation and technological skills, are capable of being so utilised. The object of all such rivalrous **behaviour** is to achieve some extraordinary profits. That is part of the essence of competition. It only becomes economically objectionable when the monopoly profits exacted are "**too much for too long**, relative to the gains returned to **consumers**."

iii It is not inconsistent with the **purposes** of patent law to subject it to the operation of competition law. The **Australian** patent law has its origins in the English Statute of Monopolies of 1623, a competition law which proscribed monopolies with the exception of monopolies for inventions. The exception of monopolies for inventions **was** on condition that they were not to be "contrary to the law or mischievous to the State, by raising prices of commodities at home or hurt of **trade**, or generally inconvenient". The patent law was only ever intended to create incentives to innovation in the form of a prospect of achieving some extraordinary profit. That in **no** way precludes giving full operation to laws which are directed to preventing market dominance, substantial lessening of competition, or other "**hurt** of trade".

iv **There** are **many kinds** of anti-competitive conduct in which patents **may** be involved. Commonly, patents may be used to reinforce, consolidate and enhance the power of entrenched **firms** to erect entry barriers and otherwise preserve market domination. This role of patents is very relevant in the context of Australia's highly concentrated and **oligopolistic** manufacturing industry. Where patents are involved in the preservation and extension of such market power, they will usually be one of a **number** of factors and influences which coalesce to enable monopolistic exploitation. The other factors and influences may include capital resources, tariffs and other protectionist interventions, **accumulated** technical skills, and goodwill. Together with the patents, these contribute in combination to the capacity for anti-competitive behaviour. There may even be occasions when a patent itself confers a market monopoly.

We **see** no reason why competition laws proscribing conduct which **has** **substantially** anti-competitive effects should not have full application in relation to anti-competitive conduct which involves patents. In those cases where the patent of itself creates extreme monopoly power, this will **mean** that the patentee must limit the exploitation of his exclusive right so as to avoid substantially lessening competition. In some circumstances, this could mean that he will **be** obliged to license others on reasonable terms.

What is critical, however, whether patents are the sole factor or one of multiple factors contributing to market power, is that the circumstance attracting the operation and sanctions or remedies of the competition law should be that the conduct in question is calculated substantially to lessen competition, and not merely that it involves a patent **or** the exercise of patent rights. There is no reason for special treatment of patent-related conduct as such, by way of either special **proscription** or special exemption.

v Logically, in relation to **per se** rules, the position **should be** no different, but there are greater practical **difficulties**. This is because **per se** rules are broad generalisations of convenience, as indicated in Section 3.1 above. They apply equally to conduct which is anti-competitive and conduct which is **pro-competitive**. In particular, they apply to conduct which involves the exercise of patent rights in ways which are within the scope of the patent monopoly, and may **be** desirable for attaining the ends of the **patent** system, without having substantially anti-competitive effects.

In the US there appears now to be a trend away from the use of **per se** rules, especially in relation to the exercise of patent rights, in favour of economic analysis of likely competitive **effects**.⁽¹⁵⁾ Under proposed US legislation it is envisaged that, in anti-trust **cases** involving patent **and** other intellectual property licensing, all **per se** rules will be abandoned in favour of **determinations** based on economic analysis. In our opinion, that is the preferable approach. It follows from what **we** have said earlier concerning the relationship of patent law and competition law that patent licensing and other conduct in the exercise of patent rights is not an appropriate subject for the application of **per se** rules.

33 Patents and the Trade Practices Act

Our consideration of the Patents Act and Part IV of the Trade Practices Act, from the viewpoint of how the **patent** system should **be** interfaced with the competition law, has led us to a number of conclusions.

First, we consider that section **51(3)** of the Trade Practices Act, so far as it relates to inventions covered by patents and patent applications, should **be** repealed. As it applies in relation to patents, section **51(3)** excludes from the operation of the provisions of the Trade Practices Act, except section 46 (**monopolisation**) and section 48 and Part VIII (resale price fixing), any conditions of patent licences and assignments of patents to the extent that those conditions relate to the invention covered by the patent or patent application, or (where the invention is a process) to products of that invention.

Consistently with our views expressed above, we consider that this exemption is misconceived and undesirable, so far as it excludes those provisions of the **Trade** Practices Act which operate according to economic analysis of whether competition is or would **be** substantially lessened.

On the other hand, merely removing the exemption would subject **patent-related** conduct to the **per se** rules contained in the Trade Practices Act in sections 4D and **45(1)(a)** (exclusionary provisions), 45A (horizontal price fixing), and **47(6)** and **(7)** (third **party** tying). For the reasons we have already indicated, this also would be undesirable.

Our view that the patent-related provisions of section **51(3)** should be repealed therefore carries the important rider that it should only **be** repealed if, at the same time, the application of sections 4D, **45(1)(a)**, 45A and **47(6)** and **(7)** to patent-related conduct is made subject to the lessening of competition test, or other suitable analysis of anti-competitive effects.

- [2] WE RECOMMEND**, with a view to proscribing patent-related conduct which has the purpose, effect or likely effect of substantially lessening competition, that the Trade Practices Act be amended to -
- i** remove the exemptions of such conduct which are contained in section **51(3)**; and
 - ii** alter the operation of sections 4D and **45(1)(a)** (exclusionary provisions), 45A (horizontal price fixing) and **47(6)** and (7) (third party tying) so that they apply in relation to such conduct subject to the lessening of competition test and not **as per se** rules.

It is outside the Terms of Reference to make any recommendation concerning section **51(3)** so far **as** it relates to matters other than patent-related conduct. Similar arguments may well apply, however; to conduct related to registered trade marks and designs, and to copyright.

Logically, the views we have expressed in Section 3.2 lead to the **view** that the application of section 48 and Part VIII (resale price fixing) of the Trade Practices Act should be similarly qualified, instead of operating, as at present, as a **per se** rule. Notwithstanding that some inconsistency is involved, we do not feel it necessary for us to recommend to this effect. It appears that the existence of section 48 and Part VIII has not in fact placed undesirable limitations on the operation of the patent system in Australia. Our view is that section 48 and Part VIII need not be altered.

Part VII of the Trade Practices Act **contains** important and relevant qualifications to the proscriptions contained in Part IV. Under Part VII it is possible to apply for authorisations permitting conduct which would otherwise be proscribed. In relation to conduct to which the lessening of competition test applies, an authorisation is only obtainable if it can **be** shown that the proscribed conduct would result, or be likely to result, in a benefit to the public, outweighing the detriment to the public constituted by the predicated lessening of competition (section **90(6)**). **For** an authorisation to be obtainable in relation to the **per se** rules, on the other hand, there must be "**such** a benefit to the **public**" that in all the circumstances the proposed conduct should be **allowed** to take place (section **90(7)**). Clearly, these tests contemplate economic efficiency. The authorisation procedure is not available in relation to section 46 (monopolisation), section 48 (resale price maintenance) or section 49 (price discrimination).

It is consistent with what we have said here and in Section 3.2 that the authorisation procedures should be available, in relation to patent-related conduct, in respect of sections 45, **45A**, 46, 47 and 50 of the Trade Practices Act. We see no need to extend them to sections 48 and 49.

- [3] WE RECOMMEND** that the Trade Practices Act be amended to make the appropriate authorisation procedure, namely that which requires the Trade Practices Commission to be satisfied that the likely public benefit would outweigh the anti-competitive effect, available in relation to patent-related conduct falling within any of sections 45 (exclusionary and anti-competitive provisions), 45A (horizontal price fixing), 46 (**monopolisation**), 47 (exclusive dealing) and 50 (**acquisitions**).

In addition there is a notification procedure available in respect of exclusive dealing, other than that covered by the **per se** rules contained in section **47(6)** and (7). We see no reason why this notification procedure might not also apply in respect of patent-related conduct covered by section **47(6)** and (7), but we do not consider it necessary to recommend positively that it should.

34 Section 112 of the **Patents Act**

Section 112 of the Patents Act contains provisions in the nature of competition law. Under these provisions, certain kinds of tying conditions (third line forcing) in a sale or lease of, or licence to use or work, a patented invention, are (except in specified alleviating circumstances) rendered void. Part IV of the Trade Practices Act would also apply to such conditions but for section 51(3).

Repeal of section 51(3) in accordance with our **recommendations** would subject such conditions to the full rigor of Part IV, including in particular section 47. Moreover, as **Baxt observed,(16)** section 112 of the Patents Act has been consistently and narrowly interpreted and applied by the courts, and so has been of little practical effect.

We consider that if section 51(3) is repealed, section 112 should also be repealed, leaving all relevant matters to be regulated under Part IV of the Trade Practices Act.

[4] WE RECOMMEND, subject to implementation of our recommendations in relation to the Trade Practices Act, that section 112 of the Patents Act, which proscribes certain anti-competitive conditions if attached to the sale, lease or licensing of patented articles and processes, be repealed, leaving those matters to be regulated by the Trade Practices Act.

35 Summary

Our recommendations in this Section proceed from the premise that there is no reason to exclude patent-related conduct and, in particular, restrictive practices in the exercising and licensing of patent rights, from the operation of a competition law which regulates market conduct according to whether that conduct has socially undesirable effects upon competition.

If the recommendations are adopted, the relevant provisions of Part IV of the Trade Practices Act, except sections 46 and 48, will operate in relation to impugned patent-related conduct according to whether that conduct has the purpose, or is likely to have the effect, of substantially lessening competition, and subject also to the authorisation procedures. Section 46 will apply according to different criteria which depend on economic analysis of the existence and anti-competitive use of market power, and the authorisation procedure will be available here too. Section 48 alone will be the only per se rule.

We consider that, while still less than ideal, the provisions of Part IV of the Trade Practices Act would in that event sufficiently meet the requirements we have discussed. It is important to remark that they might not do so if currently mooted proposals for amendments of the Trade Practices Act were to result in replacement of the "**lessening of competition**" test, in Part IV, with other less appropriate criteria. In that event, the recommendations we have made in this Section could well cease to be applicable.

4 LOCAL MANUFACTURE, COMPULSORY LICENSING AND IMPORTATION

4.1 Introduction

In the continuing debate over proposals for amendment of the Paris Convention, one of the more prominent issues has been that of local manufacture or "**working**" of patented inventions, as opposed to **exploitation** by importation.

The reason has been the preoccupation of the Third World countries, originally with import substitution, and latterly with the establishment of export industries, as means of achieving economic **prosperity**. Their concern has been that patents granted to foreigners will **hinder** the development of local industries, unless the patentees undertake or permit local working of the patented inventions. Otherwise, it is said, foreign patentees will employ their patents in the Third World countries to exploit those countries as export markets from which monopoly profits can be exacted.

Concern has centred on those provisions of the Paris Convention which regulate the circumstances in which member countries may, **where** there is "**inadequate local working**", wholly or in part abrogate the **patentee's** exclusive rights by **compulsory** licensing to enable local working by others, or by forfeiture of the patent. More generally, attention has been focussed upon the whole question of local manufacture, importation and compulsory licensing.

42 **Existing** provisions

Since 1903 the Australian patent legislation has contained provisions for the granting of compulsory licences where **patentees** fail to satisfy "the reasonable requirements of the **public**". In the present Act, these provisions are contained in sections 108, 109 and 110. They provide first for the granting of one or more compulsory licences where a patentee fails to satisfy the reasonable requirements of the public in Australia, and for the subsequent revocation of the patent if, two years after the granting of a compulsory licence, the reasonable requirements of the public are still not satisfied.

Read literally, these provisions appear to offer the possibility of a compulsory licence being obtained in a wide range of situations, including:

- i where the **patentee** is not **working** or permitting the working of the patented invention in Australia (section **110(1)(c)**);
- ii where **an** existing trade or industry, or the establishment of a new trade or industry, in Australia, is being prejudiced because the patentee is not providing adequate supply or access to the patented invention upon reasonable terms and conditions (section **110(1)(a)** and (b));
- iii where the patentee is not sufficiently meeting demand for the patented invention in Australia (section **110(1)(a)**); and
- iv where imports of the patented product, produced abroad by or with the licence of the patentee, are hindering working of the patented invention in Australia on a commercial scale (section **110(1)(d)**).

It is something of an enigma that, despite the apparent number of situations in which these compulsory licensing provisions could be invoked, only 2 cases of petitions for compulsory licences are known to have gone to court in Australia. One reason for this might be that in fact the provisions in question are ineffectual; that persons who would be **prospective applicants** for compulsory licences perceive, and are advised, that the grounds are so hedged with qualifications, discretion on the part of the court, difficulties of proof, and expense, that to petition would be too onerous or useless, particularly without access to related know-how. Another possible explanation for the **dearth** of petitions might be the very efficacy of the provision in question; that the **prospect** of obtaining compulsory licences induces patentees to refrain from misusing their patents to exact excessive profits, and to agree to grant licences on satisfactory terms. Insufficient empirical information is available to enable us to assess the validity of either of these contrasting possibilities.

Nonetheless, it is possible to consider, from the **viewpoint** of principle, the question of the purpose and role of compulsory licensing and forfeiture in relation to national economic objectives.

43 Local manufacture and compulsory licensing

The first point to be made is that local working should not be viewed as an absolute economic goal, in its own right. There will be a wide range of circumstances in which local working will be inefficient and unsuitable. In particular, there will be many situations in which our economic needs will be better fulfilled by importation than by fostering and protection of inappropriate local working with its attendant direct and indirect costs.

On the other hand, obviously, there will be situations in which local working will be desirable. For example, it may lead to enhancement of technological skills which may also have a wide application beyond the particular industry to which the patent relates. Likewise, there may be circumstances where, by reason of the existence of other competitive advantages, local working will lead to establishment of a competitive export industry. Local manufacture is also often perceived as a necessary condition for further indigenous development and invention or as a means of generating employment.

In our view there is no economic justification in the Australian context for employing compulsory licensing and forfeiture on the lines advocated by Third World countries as sanctions to compel local working at any price. Rather, compulsory licensing and forfeiture should have the purpose in Australia of providing a mechanism by which a patentee can be prevented from misusing a patent to preclude local working which is economically desirable, in circumstances where, but for the patent, it could and would occur. This assumes, among other things, the existence of conditions necessary for efficient production or provision of goods or services which will be competitive. There must exist, for example, a firm with appropriate **capacity** and resources, and which desires to undertake such **working**.

We have concluded that, in principle, compulsory licensing and forfeiture should be retained for the purpose just stated, and that the existing provisions appear to be satisfactory for that purpose.

In this connection we note that section 110(1)(c), which is the main non-working provision, includes qualifications that the patented invention must be "**capable of being worked in Australia**" and that "**no** satisfactory reason is given for the **non-working**". Similarly, so far as section 110(1)(a) may apply to a case where establishment of a new trade or industry is prejudiced by the patentee's failure to work locally, it is only if establishment of the new trade or industry is "**unfairly**" prejudiced, that the reasonable requirements of the public will be deemed not to have been met.

We read these qualifications as meaning that a compulsory licence would not be granted where, for example, local demand is being supplied by importation, local working would be less efficient, and there are no outweighing strategic considerations in favour of local working. Accordingly, it is important that all of the qualifications be retained.

The remaining aspects of sections 108, 109 and 110 do not concern local working. We consider that no fundamental changes are required to these other grounds on which compulsory licences may be granted.

Sections 110(1)(a) and (b) provide for compulsory licensing and, ultimately, forfeiture, where as a result of default of the patentee in relation to making the invention available in Australia, a trade or industry in Australia is unfairly prejudiced or Australian consumer demand is not reasonably met. One reservation which we feel concerning these provisions is that it could be argued

that they do not allow for local **demand** to **be** met by importation if that is more efficient than local production. We **do** not so interpret them, but an amendment to clarify that local demand may **be** capable of being satisfactorily met by importation may be desirable.

Section 110(1)(d) is at first impression a peculiar provision. It is expressed to apply where the working of the patented invention in Australia is being hindered by parallel importation by, or with the consent of, the patentee. Having regard to the fact that the remedy proposed is not restriction of the imports, but rather the granting of a compulsory licence, the only type of situation to which this provision could apply would appear to be where the local working is by a licensee under a licence upon terms or subject to conditions which hinder his ability to compete with the imports. Presumably, the intention is that here the local licensee can apply for a compulsory licence on more favourable terms than that voluntarily granted to him. It is not clear that this adds to what is already provided in section 110(1)(a) and (b). However, we cannot disagree with the economic approach and, accordingly, to leave the provision in place can **do** no harm.

[5] WE RECOMMEND, subject to our other recommendations on this question, that the compulsory licensing and forfeiture provisions in sections 108 to 110 of the Patents Act be retained.

44 **Compulsory** licensing and **competition law**

The existing compulsory licensing provisions do not address the possibility that compulsory licensing may be an appropriate remedy for a court dealing with patent-related conduct which exceeds the bounds of acceptable rivalrous **behaviour** and falls foul of the Trade Practices Act.

We have already adverted to the possibility that, where a patent would otherwise give rise to extreme monopoly power, it may be necessary, in order to conform to the economic objectives of the competition law, for the patentee to grant licences on reasonable terms to competitors. We see no reason why the court should not have a discretion to **order** a compulsory licence if the patentee **does** not grant a suitable licence voluntarily..

In the United States, the courts **do** have power to order compulsory licences to redress anti-trust breaches, and that power on occasions has been exercised to great effect. Its existence and the possibility that it will **be** exercised also operate as important influences upon patentees to grant licences for the **purposes** of avoiding or settling anti-trust litigation.

In our opinion, the vesting of a similar power in the relevant Australian court would be likely to assist in curbing unjustifiable, anti-competitive, patent-related conduct. Accordingly, we recommend the introduction of a **power** of this kind as an additional discretionary remedy in cases of contravention of Part IV of the Trade Practices Act. It would **be** more logical for the relevant provisions to appear in the Trade Practices Act rather than the Patents Act, but either would accomplish the **&sired** result.

A similar question arises in relation to forfeiture. There is no provision in Australia (or in the US) for forfeiture of a patent as a sanction or remedy for contravention of the competition law.

However, in the US there is the doctrine of "**patent misuse**" which effectively suspends the enforceability of a patent, where there is anti-trust contravention (and **also** in certain other situations), until such time as the patentee has desisted from, and "**purged**", his errant **conduct**.(17)

From what we know of it, the misuse doctrine in the US seems to have evolved from a rather evangelical approach to anti-trust laws, which worships competition per se and fails to take account of other welfare considerations, including the purposes of the patent system. The doctrine may be an appropriate way to deal with breaches of per se rules and, in fact, that is the context in which it has been most used. However, we have already indicated that in our **view** per se rules are inappropriate where patents are involved, because of the need to sort out and weight the different welfare objectives involved.

Consistently with those views we do not recommend introduction in Australia of a misuse doctrine or of the more draconian sanction of forfeiture for **contravention** of Part IV of the Trade Practices Act. Creation of a power to compel **compulsory** licensing in order to **redress** contravention of the competition law seems to us to be the sounder approach in terms of economic objectives.

[6] WE **RECOMMEND** that an additional discretionary power in the court to order compulsory licensing, but not forfeiture or "**patent misuse**" remedies, be introduced as a competition law remedy for dealing with patent-related conduct under Part IV of the Trade Practices Act.

45 Transfer of **know-how**

An interesting suggestion made in the Nicholson Report is that provision should be made for the courts in the UK, when ordering compulsory licensing, to be able to direct the transfer in appropriate cases and on suitable terms of related know-how, including trade secrets.(18)

In the UK, as in Australia, compulsory licensing provisions have been little used. **Nicholson's** argument is that a principal reason for non-utilisation of the provisions is that a bare patent licence would often not permit efficient innovation by the licensee, whereas a patent licence coupled with access to the related know-how would do so. The suggestion was made in the hope that a provision enabling transfer of know-how when compulsory licences are granted, "after test cases ... will lead to a general belief that such licences are an effective instrument and that therefore patentees will **be** readier to grant satisfactory patent licences with the associated **know-how**".(18)

Clearly, implementation of this proposal, whether in the UK or **Australia**, would involve difficulties relating to the framing and enforcement of know-how transfer orders, particularly where the patentee resides outside the country. But the problems involved probably would not be of greater magnitude than some of those with which courts in the US commonly grapple in connection with the dismantling of monopolies.

The requisite know-how may sometimes be obtainable at not significantly greater cost from alternative sources. In many cases this may be a preferable solution.

The reasons for the **proposal** are basically untested in the sense that, as we have already noted, there is no evidence that the low incidence of applications for compulsory licences is **because** bare licences, without related know-how, are perceived to be of little commercial value. Certainly, Nicholson provides no empirical support for this idea.

Nonetheless, we are inclined to think that the proposal is worthy of implementation on a trial basis in Australia. If lack of access to related technology is not in fact the reason why there is little compulsory licence

litigation, then nothing will have been lost by the experiment. On the other hand, if there is substance in the argument, then the procedure will be a useful one to explore.

It would be left to the **court's** discretion in dealing with compulsory licence applications to determine whether any and what know-how should be ordered to be transferred in conjunction with the licence. The court would also have to formulate appropriate directions for arranging its transfer, for meeting the costs involved, and for providing suitable recompense to the patentee, all as part of the reasonable terms **upon** which the compulsory licence is granted. The **patentee** would at all times have the right to surrender the **patent**.

[7] WE **RECOMMEND** that in ordering the grant of a compulsory licence the court be given a discretionary power to order transfer of related know-how as part of the reasonable terms on which the licence is granted.

One member of the Committee dissents from this **recommendation**. He is of the opinion that it is unlikely to be effective and that there should not be introduced a provision for divesting know-how from patentees but not from others guilty of **anti-competitive** behaviour. In his view, such a provision would act as a disincentive to patenting, so that manufacturers would resort to secrecy to protect innovations, rather than to the patent system.

6 6 Jurisdiction

An important consideration in all that we have said in this Section is that compulsory licence applications and subsequent forfeiture applications will be made to and **dealt** with by a court.

Under the present provisions, the application procedure requires a petition to be presented to and considered by the Commissioner of Patents. The Commissioner may then either dismiss the petition or refer it to the court for determination. Of course, there is an appeal to the court from dismissal.

In our opinion, it would **be** preferable for applications to be made directly to and dealt with by the court.

It is an important part of our conclusions that the court with jurisdiction over applications **under** sections 108, 109 and 110 will be the Federal Court. From what we have said so far, it will **be** evident that the issues which arise in compulsory licensing and forfeiture proceedings are inextricably linked with competition law issues and require similar investigation and analysis of economic considerations.

Cases could be expected to be decided faster and better, with lower costs, if all such matters were dealt with by the one court. That would permit the judges (or a particular division) of that **court** to **develop** (and perhaps in due course to be appointed for) expertise and experience in relation to the relevant subject matter and both legal and economic principles.

We have elsewhere recommended that other relevant jurisdictions **under** the Patents Act should also be vested exclusively in the Federal Court.

[8] WE **RECOMMEND** that jurisdiction in relation to compulsory licensing and subsequent forfeiture matters **be** vested directly and exclusively in the Federal Court, without provision for preliminary consideration of petitions by the Commissioner of Patents.

47 Licences to import

It is important to emphasise that what we have said earlier in this Section in relation to sections 108, 109 and 110, and concerning compulsory licensing as a competition law remedy, involves the following understandings concerning importation:

- i If by reason of default on the part of the patentee, of any of the kinds described in section 110(1)(a), demand for the patented article in Australia is not being reasonably met, then sections 108, 109 and 110 will, in appropriate circumstances, permit a person who is in a position to import, to obtain a **compulsory** licence authorising him to do so, where that will result in demand in Australia being more reasonably met.
- ii If our general recommendations concerning application of the Trade Practices Act are implemented, then, where the exercise of patent rights to prevent importation has undesirable anti-competitive effects, the Trade Practices Act will apply to regulate the exercise of those rights, and a compulsory licence may be obtainable to permit the importation. We note that the Trade Practices Act requires competition by imports to be taken into account.

It is fundamental from an economic viewpoint that Australian patents should not be capable of being used to maintain excessive prices by excluding imports. This applies both to patentees who treat Australia as an export market and who wish to eliminate **other** imports in order then to charge excessively for their own products, and also to patentees who are local producers wishing to **eliminate** imports in order that their locally produced products may then be sold at excessive **prices**.

In determining what amounts to an excessive charge, the considerations which apply where the patented articles are **imported** may differ from those which apply where they are locally produced. Indeed, in every individual case, it will always **be** necessary to have regard to other relevant welfare and equity considerations which may be involved. However, the essential point is that relevant economic criteria **will** be examined and the case assessed accordingly.

[9] **WE RECOMMEND** that compulsory licences, whether ordered in proceedings under the Patents Act or the Trade Practices Act, be available notwithstanding that the prospective licensee wishes to exercise the licence by importation.

48 Infringement by importation

Under the existing law, a patent is infringed by importation of the patented article or, in the case of a process claim, of the product of the patented process. It is implicit in what appears in Section 4.7 and elsewhere in this Report that the principle of infringement by importation will continue to **be** part of the Australian law.

There are arguments which have been put, on economic **grounds**, for abandoning this principle and permitting importation into and circulation within Australia of articles made outside Australia which, if made within Australia, would be infringing articles.

The basis for **such** reasoning is that if, even with the assistance of a patent conferring exclusive rights to local **working**, local production cannot **compete** successfully with imports, then there is no case for **encouraging** or inducing innovation by local **working**; importation is economically more efficient and should not be restricted. Least of all, so this reasoning proceeds, where **importation** is more efficient than local production, should a patent be **capable**

of being used to protect the patentee's own imports from competition from other imports. If there are cases where innovation by local working is desired to be encouraged, this can be achieved deliberately and selectively by the use of tariffs.

A majority of the Committee is not prepared to accept that these arguments justify a recommendation that the law should be altered so that importation does not constitute infringement. The majority considers that, while it is recognised that there may be many situations in which innovation by local working will be less efficient than importation, nonetheless it is reasonable to start from the premise that, *prima facie*, innovation by local working is to be encouraged, because it will tend to strengthen and **broaden** the country's technological base and in that way contribute, in the longer term, to the dynamic development of more efficient local and export industries.

It is consistent with this approach to view the purposes of the patent system, in its role of creating added inducements for investment in innovation, as being directed, *prima facie*, to the inducement of innovation by local working. To allow importation of patented articles would reverse this approach.

Accordingly, the majority view is that the preferable approach is to leave the principle of infringement by importation in place, subject however, first, to the operation of the Trade Practices Act, and second, to the compulsory licensing provisions, operating in each case, in the ways we have already discussed and recommended. In particular, section 46 of the Trade Practices Act will be available to prevent monopolists from using patents to exclude import competition, and under the compulsory licensing provisions it will be possible to seek a compulsory licence to import where local demand is not being otherwise reasonably met.

A last point that arises in relation to infringement by importation is whether Australia should adopt a **wider "exhaustion of rights"** principle.

The idea of exhaustion of rights has been adopted in a number of countries in which the concept of infringement **by** importation is applied. It amounts to saying that whereas, ordinarily, importation of the patented article, or an article made by the patented process, will constitute infringement, this will not be so if the person by whom the imported article was first put into circulation somewhere else in the world, is the person who is the patentee in the country of importation.

This principle is already part of the **existing** Australian law, subject to a qualification that importation of the patented article put into circulation outside Australia by the Australian patentee will be an infringement if, at the time of first putting the article into circulation, that patentee attached an express stipulation against bringing it into Australia.

However, in some other countries, especially those of the European Economic Community, a considerably expanded exhaustion of rights principle is applied. First, the qualification that the patentee may effectively stipulate against importation is not admitted. Second, the principle is extended to articles put into circulation by persons licensed by the patentee, and certain classes of persons connected or associated with the patentee.

In relation to the EEC the explanation for this expansion of the principle is largely to be found in the fact that otherwise the patent right could frustrate the provisions of the Treaty of Rome relating to movement of goods between States. It is important in this context to understand that the EEC applies the

principle only as between its member States. It **does** not apply the **principle** to the importation into member countries of goods first put into circulation in countries outside the **EEC**.

Given that it **does** not recommend eliminating in **toto** the principle of infringement by **importation**, the majority of the Committee **does** not see that any useful purpose would be served by widening the existing exhaustion of rights principle to extend its application to **goods** put into circulation outside Australia **by** particular types of persons who are licensed by or otherwise connected with the patentee. Adoption of this approach could operate to discourage licensing by Australians of their inventions abroad since to do so would then expose them to competition from their foreign licensees in the Australian market. It would also introduce a **positive** bias against **Australian** manufacturers for the reason that in other parts of the world, including the EEC considered as a whole, the wider principle of exhaustion does not apply. In addition, uncertainty and difficulties of interpretation and application, with attendant administrative cost and potential for expensive litigation, would be likely to be created.

[10] WE RECOMMEND that no change be made to the existing Australian law concerning infringement by importation and **exhaustion** of rights.

PART C

LENGTH AND BREADTH OF RIGHTS

Our stated aim of reducing "unnecessary social costs" **recognises** that **some** social **costs** are "**necessary**". The basic concept is that social welfare is **maximised** when the net surplus of gains over losses is **maximised**. However, even though this may not be achieved, consumers will be advantaged if the **gains** are sufficient to outweigh the attendant losses.

The easiest reforms to propose for improving the **benefit/cost** margin resulting from operation of the patent system will be ones which can be predicted to reduce social **costs** without **any** accompanying likelihood of also lessening stimulus to innovation. Where a reform would potentially reduce social costs but also diminish the benefits produced **by** the **system**, the **assessment** becomes **much** more difficult.

The overall effects of the patent system appear to be subtle, largely unexplored, and imperfectly understood, and in this situation reform should be approached with considerable caution. Nowhere are these considerations more apposite than in relation to the fundamental issues of -

- how long **should** the patent term be?
- for what things should patents be, and not be, obtainable?

5 TERM OF STANDARD PATENTS

The Patents Act provides for a standard patent to have a term of 16 years from the date of lodgment of the complete specification, subject to **payment** of annual renewal fees. An extension of term for up to 5 years, and in exceptional cases 10 years, may be obtained where the patentee is found, after an extensive **enquiry** in the courts, to have been inadequately remunerated. (Extensions arising from war losses are also available but it is not necessary to deal with them in any detail here). There have been a number of recent Australian cases in which extensions of term have been granted, in some cases for 10 years. They have included cases where the patentee has been prevented from exploiting the invention during all or a substantial **part** of the term of the patent due to delays in obtaining regulatory approval from the Government before products can be marketed ("**regulatory delays**").

It is clear from information produced to us by the Patent Office that the majority of patents issued do not run their full term. Of the patents commencing in a given year, about 7% cease each year after the 4th year, so that about 50% cease by the end of the **10th** year and less than 20% are renewed for the 16th year. Many useful patents have a short life because the inventions to which they relate become outmoded or replaced by other developments. However, there is no detailed evidence available to show how, and what **proportion** of, patents in force at any given stage are being **exploited**.

Patent terms in other countries range from 3 to 20 years, and there are 5 different commencement dates which are employed. In a few **cases** different terms are given for different types of inventions (such as **foodstuffs**, medicines and pharmaceuticals). Extensions of term are available in some countries, sometimes depending on local **working** of the invention. It has been suggested to us that there is internationally a trend towards a longer patent term.

Under the European Patent Convention, and in countries subscribing to that Convention, a uniform term of 20 years is afforded. However, many countries have patent terms of less than 20 years - typically between 14 and 17 years.

The issue of the desirable length of term of a standard patent was strongly canvassed in submissions made to the Committee. Submissions supporting a longer term, or increased availability of extensions of term, were variously based on arguments relating to international uniformity, to the development time needed to bring certain inventions to commercial fruition, and especially to regulatory delays applying to certain classes of chemicals (particularly pharmaceutical, veterinary, and **agricultural** chemicals). No submission favoured a shorter term.

Nor did any of the submissions advocating a longer term, or increased availability of extensions, involve conclusions arrived at by the use of economic analysis.

On the other hand, the **view** has been put over a long period that economic analysis suggests that a term much shorter than 16 years is probably socially optimal. These suggestions have been mostly based on the application of economic theory to rather primitive models of static market conditions. **However**, as **Tisdell** said in discussing questions as to the optimal length of life of a patent, "**the** social assessment of technological progress is more complex than assumed in the standard **case**". (19) He concluded that the evidence reviewed in his paper, which was evidence derived from analysis of models, indicated "**that** the socially optimal length of life for patents is likely to be 10 years or **less**". (20) He warned, however:

"One needs to be wary about using simple economic models as a basis for proposing reforms to the patent system. Much more theoretical and empirical work is needed on this **subject**". (20)

It is evident that to increase the length of the term of patents for inventions generally, or for any class of inventions, will produce added social costs, because there will be the potential for a proportion of the patents concerned to be used to exact additional monopoly profits during all or part of the further period which is added.

Accordingly, any increase of term would **be** warranted only if it could be shown that a net social gain nonetheless would result. That could only be if the increase in question would produce sufficient added social advantage, either by further stimulus to worthwhile innovation or in some other identifiable way.

Conversely, if the term of patents for all or particular classes of inventions were reduced, there would be a clear potential for social cost savings, but the effect on incentive to innovation, and on the **position** of Australia's present and potential export industries, and the possibility of other more indirect and subtle negative social implications, would all require assessment.

Perhaps inevitably in **view** of the complexity of the subject, and the lack of empirical data and of adequate theoretical work on the subject, the members of the Committee differ in their conclusions **as** to the issues involving **patent** term. Two members believe that the term of a standard patent should **be** reduced to 10 years. A majority of the Committee considers that the existing term should not be altered at present, either across the board or in relation to particular industries or **classes** of patents.

The reasoning of the majority is as follows:

i It is not clear that significant **social cost savings would follow from a** reduction of the term, from 16 years to 10 years, or, a fortiori, from any lesser reduction. The **evidence** is that not many patents have an effective life after 10 years. Most inventions, even if commercially successful, are outmoded or superseded within that time. Obviously, there will be exceptional cases in **which** the extraordinary profits reaped by the patentee in the latter half of the 16 year term will **be** enormous, relative to any social gains contributed. It **does** not follow that the social costs of such exceptional cases are significant in the total picture.

ii The losses resulting from reducing the patent **term**, on the other hand, could be **more** significant. While the complexities and subtleties of the system may not be **well** understood, it is apparent that **psychological** effects are important. The positive influence of the **prospect** of achieving large monopoly profits for 16 years may **be** altogether disproportionate to the number of instances in which such profits are actually achieved. Similarly, in relation to the perception of prospective **transferors** of foreign technology, the influence of a reduction of term from 16 years to 10 years could **be** greater than cold, objective analysis would suggest it ought to be.

iii The weighting which might otherwise be attributed to the social **costs** of a 16 year term, **as opposed** to a 10 year term, is moderated by our **recommendations** concerning competition law. Where there is a competition law which applies to anti-competitive patent-related conduct, the social costs potentially associated with a patent monopoly are commensurately reduced. The patent system cannot legitimately be viewed as creating costs which would result from patent-related conduct which is effectively prevented or deterred by the competition law.

iv The questions relating to length of term cannot be looked at in isolation. Later in this Report recommendations are made concerning a **"two-tier"** patent system. These recommendations have the purpose of reducing the outflow of extraordinary profits resulting from the **utilisation** of patents owned by non-residents. They would be nullified by reduction of the standard patent term to 10 years, because petty patents, as we are recommending them to be, would then be more attractive than standard patents, for foreign and local applicants alike, in virtually all circumstances. A significant part of the benefits hoped to be achieved by the proposed two-tier system **will** be dependent upon foreign applicants for the most part continuing to opt for standard patents rather than petty patents. It is the longer term which will lead them to do so.

v No case **has been** made out **for** a longer term. No empirical evidence **has** been adduced which supports the idea that to increase the standard patent term beyond 16 years would produce significant added social gains, and the theoretical evidence, such as it is, to be derived from the economic literature points to a shorter, rather than longer, term.

vi Arguments that Australia **should** join the international trend **towards** a 20 year term are **unconvincing**. The supposed trend really is only among Western industrialised countries, mostly having economies with which Australia's economy has little in common. Reciprocity on term is not required under the Paris Convention or by other international **obligations**.

The Committee is agreed that all existing procedures for seeking extensions on the grounds of inadequate remuneration, or war loss, should be eliminated. There is no evidence that the extension **procedure** contributes to social benefits

provided by the Australian patent system. On the other hand, there are likely to be social costs arising from the uncertainty faced by **competitors who** are unsure when rights in patented inventions will terminate. **War loss**, if it should occur, will best be dealt with by specifically adapted measures at the time.

Three members of the Committee note that the introduction of some products to the market place is subject to Australian (**federal**) Government approval. This is particularly true, for example, of pharmaceuticals and of some chemicals in the agricultural and veterinary fields. Available evidence shows that the time to obtain approval, usually because of a requirement to conduct tests an essential element of which is the passage of time, can take many years. They argue that because such regulatory delays are imposed by the same Government that grants the patent, because their duration is unpredictable, and because they effectively prevent the patentee from proceeding with the orderly development and marketing of the **patent**, equity demands that the patentee be compensated by an extension of the patent term equal to the regulatory delay. They note that the NZ Industrial Property Advisory Committee came to the same conclusion, putting a **maximum** of 4 years on the extension, and would recommend similarly. They are also of the view that, in the light of the Australia NZ **Closer** Economic Relations - Trade Agreement, the length of the patent term should be the same in both countries. A majority of the Committee rejects these arguments.

In the view of the majority, in the absence of contrary empirical evidence, it **strains** credulity to contemplate that research or innovation investment decisions, made early in the life of the invention, could ever be materially influenced by the **prospective** availability of an extension after expiration of the initial 16 year term to compensate for inadequate remuneration, particularly when allowance is made for discounting. On the other hand, such extensions would increase social costs. It should be noted that regulatory delay affects many innovations in many industries in many different ways. For example, automotive emission, building and sanitary systems, telecommunications, human medicines and agrochemicals are all subject to regulation which may significantly delay the marketing of new products. Delays to marketing may be caused by a variety of factors other than government **regulations** and which, irrespective of their source or nature, affect patentees' financial returns. In this context, price control may be added to delay as a further factor affecting returns. To single out regulatory delays caused by federal legislation as the only ground for extensions of term would be illogical in the **view** of the majority of the **Committee**. For these reasons the majority rejects the proposal for extensions for regulatory delays.

[11] WE RECOMMEND -

- i** that the present standard patent term of 16 years from the date of filing of the complete specification not be altered, either generally or in the case of particular industries; and
- ii** that the procedures for granting of extensions of the terms of standard patents be eliminated in **toto**.

6 MANNER OF MANUFACTURE

Inventions for which patents may be obtained are defined in section 6 of the Patents Act as being "**any** manner of new manufacture the subject of letters patent and grant of privilege within section 6 of the Statute of Monopolies".

This concept involves 3 primary tests: the invention must be new, inventive (not obvious), and capable of industrial application. **The** requirements of novelty and invention are the subject of express grounds of invalidity under

section 100 of the Patents Act and are discussed **below** in Section 7. The industrial capability requirement arises from the reference to section 6 of the Statute of Monopolies and the words "**manner** of ... manufacture". This concept involves little more than that an invention must belong to the useful arts rather than the fine arts.

Over the last 350 years the courts have interpreted and applied the concept of manner of manufacture in an expanding and generally non-selective fashion, except for a tendency to focus on manufacturing industry, more or less in accordance with the expansion of technology and industrial activity, and the needs and understanding of the **times**.(21)

From the standpoint of public interest or industrial policy objectives, however, the question of what sort of inventions should or should not be patentable needs to be asked and, indeed, has given rise to much debate throughout the history of the patent system. In principle, it would be **possible** to legislate about what may **be** patented for the purpose of seeking to implement selective economic policy objectives, according to **Australia's** perceived needs and circumstances. In particular, this could be done for the purpose of encouraging or discouraging innovation, or stimulating or precluding patenting, either in certain industries or technologies or in relation to particular descriptions of products or processes. Surgical and medical techniques for human therapy, and mixtures of **foods** and medicines are regarded in many countries as being **unpatentable** on public interest grounds. Pharmaceutical and therapeutic compounds are regarded as unpatentable per se in many less developed countries which do not have an indigenous pharmaceutical manufacturing industry. Some advanced countries such as the UK, Germany, Switzerland and Japan, have at one time or another limited the patentability of chemical compounds to assist their indigenous chemical industries to compete against foreign-based companies. Such an approach reflects perceived negative or restrictive effects of patent rights, particularly when granted to foreigners.

On the other hand, reflecting positive, pro-competitive aspects of patents, it would **be** appropriate to ask whether the concept of manner of **manufacture** should be broadened specifically to embrace modern technologies, particularly those which are software based (either in the **narrow** computing sense or in a more general sense which might include accounting, investment, and other systems of doing **business**).

As a general view, the Committee considers that attempting to fine tune the patent system in this way would be unlikely to prove very useful for the purpose of implementing economic policies in the way postulated. There are other available measures of a more flexible and immediate nature, such as tariffs, taxation incentives, and other forms of specific selective encouragement or discouragement. Compared to these measures, changes to the criteria for patentability, and more particularly the subject matter for which patents can and cannot be obtained, would be likely to prove a very slow, blunt and inefficient instrument for influencing the economic direction of **particular** industries or fields of technological development in Australia. Not the least relevant consideration in this connection is that particular exclusions which might be proposed would take up to 16 years to work out of the system, in so far as there are existing patents relating to the subject matter to be excluded.

More specifically, with regard to chemicals and pharmaceuticals, the majority of the Committee considers that there was insufficient empirical evidence or other information to determine whether exclusion of these fields from patentability would positively stimulate the development of an indigenous manufacturing industry or what effect it would have on the availability of **drugs** and other fine chemicals on the Australian market.

Two members of the **Committee** consider that some explicit restriction of patentability for inventions in this field would be appropriate in view of **Australia's** stage of development in chemical manufacturing. For example, Australia might do well to follow the recent Chinese patent legislation which expressly excludes from patentability, pharmaceutical products, substances obtained by means of chemical process, **foods**, beverages and flavourings. The majority rejects this **view**, considering the public interest in this question to be adequately provided for, having regard to the recommendations elsewhere concerning competition law and **compulsory** licensing. It is apparent, moreover that, world-wide, patents are important in the pharmaceutical and chemical industries, and that this is one of the areas in which the observation that reform should be approached with considerable caution has application.

Likewise, there has not been made out to the Committee any case for legislating specifically to bring all forms of computer software within the scope of patentable subject matter. We note also that hitherto the computer software industry in Australia has been developing rapidly without relying on patent **protection**. This, coupled with the great practical difficulty of setting boundaries for patentable software and of conducting systematic and thorough novelty searches, convinced the Committee that it should not recommend explicit extension of the field of patentability to cover software.

Finally, it has often been suggested that the reference to "manner of manufacture" as the touchstone of patentability should be replaced by an explicit statement of what is and what is not patentable. **For** example, a codified definition was substituted in the UK Patents Act for the former reference to manner of manufacture to bring that legislation into line with the European Patent Convention. We consider that the existing concept operates quite satisfactorily. It has the advantage of being underpinned by an extensive body of decided case law which facilitates its application in particular circumstances. At the same **time** it has, in the past, exhibited a capacity to respond to **new** developments. To replace it with a codification would be likely to produce far more problems, with attendant costs, than it would solve. On this point, the Committee agrees with **Dufty's observations.(22)**

[12] WE **RECOMMEND** that the present threshold test of patentability by reference to section 6 of the Statute of Monopolies and to the expression "**manner of new manufacture**" be retained, without specific legislative **inclusions** or **exclusions**.

PART D

FOSTERING NATIONAL INTERESTS

7 STANDARD AND PETTY PATENTS - A TWO-TIER SYSTEM

7.1 The case for a two-tier system

Australia grants both standard patents which have a 16 year term, and petty patents, limited to a single claim, which have a 6 year term. Some other countries, notably Germany and Japan, have a two-tiered system granting petty patents or their equivalent for inventions of a lower standard of inventiveness than for standard patents, but no other country has a petty patent system which is precisely the same as the Australian one.

World-wide, the practice is to grant patents only for "**inventions**". As already noted, two basic requirements of an invention are that it must be new and inventive. The underlying concept is that a patent should only be granted for something which adds to what was known or practised previously in the field of art concerned. Novelty is ascertained by reference to what previously has been **done** and **disclosed**. Inventiveness is usually determined by applying a test of obviousness, in the light of what previously **has** been done and disclosed.

Within these parameters, the precise requirements and **methods** of application of these criteria vary between individual countries. Generally, those in Australia, which are the same for both standard and petty patents, are less rigorous, or "**lower**", than in most other countries. The main respects in which the Australian requirements are lower, are these. First, in relation both to novelty and to obviousness, regard is had only to what previously has been done **and disclosed** in Australia, whereas the international trend is to look also to what has gone on in other parts of the world, at least insofar as it is publicly recorded or reasonably readily ascertainable. Second, recent decisions of the **High** Court have held that obviousness is to be determined by having regard to the common general knowledge in the relevant art, and without regard to documents in existence but not part of the common general knowledge, whereas in **most** other countries all publicly available documents are treated as relevant.

The precise requirements and application of the Australian law, and its differences from the approach elsewhere, and in the UK and the EEC in particular, are treated at length in Chapter 2 of Dufty. The end point that is relevant here is that **under** the existing Australian law, standard patents, as well as petty patents, are obtainable for inventions which would not qualify for patents in many other countries, including Japan, the US, and EEC **countries**. In this situation it is perhaps not surprising that Australian petty patents, which were introduced in 1979, following recommendations made by the **Franki** Committee (23) and a report by this Committee (24), have not been much used. In submissions made to us, and at the Commercial Implications Seminar, Australian petty patents were criticised on the ground that they are required to have the same level of inventiveness as standard patents, and give in return only a short term of protection.

We have reached the conclusion that Australia will be advantaged if higher levels of invention generally compatible with international standards are required to support a standard patent. On the other hand, in the process of innovation, much of the essential work is not at the level of a major

breakthrough or a significant inventive advance but rather at the level of refining, improving or adapting existing technology. In this process there are made, in Australia, many inventions which may not **be** of such an inventive height as to satisfy the **high** international standard but which are, nevertheless, significant in the commercialisation of an innovation. We believe this level of invention and innovation to be of importance and that it should not **be** excluded from protection altogether by the raising of the level of invention required to support a standard patent and that petty patents should remain available for these inventions.

Our reasoning is as follows:

i International conformity on patent validity criteria would assist Australian **exporters**. In terms of the desirability of assisting development of export markets for Australian manufacturers, no advantage whatever is to **be** derived from applying, in relation to the grant of Australian patents, lesser requirements than those which are internationally applied. Applicants for patents are psychologically conditioned by the standards prevailing in their own country, and if Australian requirements for validity are not generally in conformity with world standards Australian inventors will be misled into thinking that an invention which is patentable according to the Australian standards will also **be** patentable elsewhere. Clearly there can be no question that raising the criteria for validity in this way would affect Australia's international relations or obligations, since the standard would merely be raised to that of current international practice.

ii Adoption of higher **standards** would reduce **social costs since fewer** valid standard patents would be granted. In particular, it would reduce monopoly profits flowing out of Australia to the non-residents who own the bulk of all Australian patents.

iii Petty patents with lesser requirements than standard patents would assist lesser Australian innovations. In the absence of petty patents, the risk in this measure would be that the value of the patent system in Australia, as an incentive to indigenous innovation, could be materially reduced. However, that risk will be satisfactorily accommodated if petty patents with lower requirements and standards of validity are available in relation to innovations which may **be** locally desirable, within Australia, but do not involve inventions of sufficient **"height"** to be patentable outside Australia.

Generally speaking, petty patent protection should be adequate for the purposes of providing sufficient stimulus for indigenous innovations involving inventions which are not of **"standard patent"** quality. **The** inventions concerned will, by and large, be lesser inventions that will **be** likely to be superseded or outmoded by the end of the shorter petty patent term, and will **also be** capable of being brought effectively within the narrower **claiming** scope of petty patents.

iv Petty patents would still **be** more likely to be **used** by Australians than by foreigners. Not many overseas countries grant petty patents or their equivalents. The most important ones which do are Germany and Japan. Experience has shown that applicants for patents do not usually seek protection abroad which is not available **under** their domestic law and foreign applicants are unlikely to be attracted to a system offering only 6 years protection since in the majority of cases the protection will have expired by the time the patentee is ready to extend the exploitation of the invention to Australia. **The** limited experience which has been obtained of the operations of the petty patent system in Australia and the experience in Germany and Japan confirm the **view** that petty **patents** and similar forms of protection are used principally by local industry and are not much used by foreigners. In particular, we

understand that in Japan and West **Germany**, "utility models", which in the present context are comparable to Australian petty patents, are mostly applied for by local firms, and seldom by foreigners (except, in West Germany, by residents of other **EEC** countries, for reasons which do not detract from the present argument).

v **The effects for standard and petty patents would be complementary.** If the argument thus far proves to be correct, the stimulus to indigenous innovation which **might** be **lost** by heightening the validity requirements for standard patents, will be substantially offset, and replaced, by **the** stimulus provided by the petty patent system. **However**, the availability of petty patents will not diminish the savings achieved by granting standard patents to non-residents only in accordance with more stringent requirements.

vi Cost savings would be achieved even if usage of **petty patents** by **non-residents** increased. At the worst, if we are proved wrong and, as a result of implementation of the proposal under discussion, petty patents became popular with non-residents, social cost savings should **nonetheless** still be achieved since non-residents are presently able to obtain standard patents for inventions of "lesser" height. Petty patents obtained by non-residents for "**lesser**" inventions of the petty patent height would last for only 6 years and be of much lesser breadth.

This argument and the broad proposal which is derived from it, namely to increase the "**height**" requirements for standard patents, while leaving petty patents substantially as they are now, form the basis for most of the specific recommendations contained in the remainder of this Section. In our opinion, implementation of those recommendations would significantly curtail the **costs** of the patent system, especially those incurred by unnecessary outflow of extraordinary profits to non-residents, without detracting from the benefits to be derived from stimulation of either international or indigenous innovation.

Our clear impression from all of the submissions made to us and from the proceedings at the Commercial Implications Seminar is that Australian industry overwhelmingly endorses the idea that the inventive height and other requirements for Australian standard patents should be raised in the ways we are proposing.

72 Standard **patents**: novelty and obviousness

The present Australian law requires novelty and obviousness to be determined against a prior art base comprising things published in Australia before the priority date. This is sometimes referred to as a "**domestic**" or "national" standard of novelty. For these purposes "**published**" includes things published in written form in books, journals, patent specifications and other documents, things orally communicated, and things previously done or used.

Most countries have now adopted, for both novelty and obviousness, a prior art base which is "universal", **i.e.** including what is known, or publicly available, anywhere in the world. The justification is that the transfer of information today is so fast, and the availability of, and access to, international data **banks** is so extensive, that it no longer makes any sense to assess an invention solely against what is known or publicly available in the particular country in which the patent application is being made.

In some countries (for example, under the European Patent Convention) the base includes anything made public by any means or used anywhere in the world. This is known as an "**absolute**" universal prior art base. In other countries,

notably the United States, the universal base is "**qualified**" in that, while it includes printed **publications** available anywhere in the world, it takes account of prior use only where it is domestic.

We take the **view** that where information exists in a recorded form, it should usually **be** relatively simple to establish whether it was publicly available prior to a particular date. On the other hand, where there has only been prior oral disclosure, or prior use, unaccompanied by any record, different **considerations apply**. Proof of what was disclosed or used will depend much upon the testimony of witnesses and their credibility. If the facts relied upon occurred **outside** Australia, the problems of proof, and related **costs**, would **be** increased. Moreover, an absolute universal prior art base, taking account of prior oral disclosure or use anywhere in the world, greatly increases uncertainty as to the validity of a **patent** and the impact of this on the intended role of the patent system as a stimulus to innovation must be considered. Prior to making an innovation investment decision, it will **be** possible for a patentee to carry out searches which provide a reasonable degree of assurance as to the probable validity of a patent in terms of whether there is relevant prior published recorded information. It is virtually impossible to make any similar investigation of prior oral disclosure or use anywhere in the world, except as regards what is commonly known and used in the relevant field of art. The **degree** of uncertainty applying in relation to what previously has been orally communicated or used in Australia may **be** expected to be much **less**, and is **embodied** in the existing Australian system.

Under section **158(1)(a)** of the Patents Act, certain prior specifications are excluded from the prior art base under the so-called "**fifty year rule**", that is, specifications more than fifty years old are not taken into account. It is inherent in our recommendations that this exception would **be** removed.

We have concluded that in Australia novelty should **be** examined against a prior art base consisting of disclosures publicly available in recorded form anywhere in the world, disclosures openly made, by oral communication, in Australia, and what has been openly done and used in Australia.

We observe that if this were the case, the present separate ground of "**prior publication**" would **be** subsumed within that of lack of novelty.

Anticipation **by** secret use in Australia (other than for the purpose of reasonable trial and experiment only) should **be** retained as a separate ground of invalidity.

For the purpose of determining inventiveness, any single prior disclosure or use should be capable of being considered against the background of all that is common general knowledge in the relevant field of art. On this basis the requirement of inventiveness will not **be** fulfilled if the knowledge imparted **by** the disclosure or use, combined with what is common general knowledge in the art, would render the **claimed** invention obvious to a person reasonably skilled in the art.

However, it should not **be** possible for this purpose to combine two disclosures, two **uses**, or a **disclosure** and a use, where neither is within the common general knowledge of the art, except where one disclosure refers to another disclosure or use.

On the other hand, we see as being treated as within the common general knowledge of the art, not merely information which is generally known and used in the art, but also information publicly available in recorded form anywhere in the world which a skilled person working in the art at the relevant time should reasonably have been expected to find, understand, and regard as relevant.

We have spoken of disclosures which were "**publicly** available in recorded form"¹, rather than disclosures which were "**published**", with the intent that the prior art base should extend to matters recorded in **non-written** form. More specifically, it should extend to matters recorded in computerised data banks, if that information is accessible in a way that makes it publicly available, similarly to the way that public library holdings and **specifications** held in patent offices are considered to be publicly available. Disclosures thus publicly available anywhere in the world, as well as all other publications in the more traditional understanding of that word in the patent context, should be part of the prior art base for the novelty and obviousness requirements of standard patents.

[13] WE RECOMMEND -

- i that novelty and obviousness for standard patents be determined against a prior art **base** consisting of -
 - disclosures in recorded form **publicly** available anywhere in the **world;**
 - disclosures openly made, by oral communication, in Australia; and
 - what has been openly done and used in Australia;
- ii that, for these purposes (except where there is cross-referencing) it not be permissible to combine any two disclosures, or a disclosure and a use, or any two uses, save that in determining obviousness any single disclosure or use should be capable of being viewed in the light of the common general knowledge in the relevant field of art, at the relevant time; and
- iii that the common general knowledge in the art be treated as including disclosures in recorded form publicly available anywhere in the world which a skilled person working in the art at the time should reasonably have been expected to find, understand, and regard as relevant.

73 Prior claiming

A further particular aspect of the novelty requirements is that a claim to an invention may be anticipated (**i.e.** rendered not novel) by a patent specification having an earlier priority date, notwithstanding that at the priority date of the claim in question, the earlier specification was unpublished and its contents were not publicly available. At present, under Australian law, such anticipation does not arise except as regards a claim which is specifically prior claimed **by** a claim of the earlier specification. This prior claiming approach has proved to be unsatisfactory in practice and, in our opinion, it is too narrow. In other countries there is adopted a relatively simple "**whole** contents"¹ approach, under which any disclosure contained in an earlier specification (not being a specification relating to an application which has lapsed or been withdrawn) may be relied upon as an anticipation for determining novelty but not obviousness. We are of the opinion that this approach should now be adopted in Australia, in relation to both standard and petty patents.

[14] WE RECOMMEND that prior claiming **by** earlier unpublished patent specifications be abolished as a ground of objection or invalidity for both standard and petty patents and replaced by a "**whole** of contents"¹ approach in determining novelty **but** not obviousness.

74 Petty patents

In order to implement what we have said in Section 7.1, the present requirements and tests of novelty and obviousness for petty patents should remain substantially unaltered. This will result in petty patents having lower criteria for validity than standard patents will have upon implementation of the proposals we have made in Section 7.2. In particular, we consider that the

prior art base for examining novelty and inventiveness for petty patents should basically remain confined to publication and use occurring **within Australia**. There are, nonetheless, some changes which we think will **be** desirable.

We have mentioned in Section 73 the change from the "**prior** claiming¹ to a "**whole of contents**" approach to anticipation by a patent specification with earlier priority.

We think, in addition, that, while obviousness is to be determined by reference to the common general knowledge of the art in Australia, it should be made clear that the common general knowledge is to **be** understood **as** extending to any disclosure publicly available in recorded form which a skilled worker in the art in Australia at the relevant time could have been expected to find, understand and regard as relevant. The expression "**publicly** available in recorded **form**" here is intended to have the same connotation as in Section 72, except that in relation to petty patents, "**available**" would mean capable of **being** accessed or otherwise directly available in Australia (though the place where the information is stored may be outside Australia).

[15] WE RECOMMEND -

- i** that novelty and obviousness **for** petty patents be determined against a prior art base which is the same as that which we recommend for standard patents, except that only those **disclosures** in recorded form which are publicly available in Australia may be considered; and
- ii** that combinations of **disclosures and/or** uses only be permissible as for standard patents; except
- iii** that the common general knowledge **be** treated **as** including only **those disclosures** in recorded form which are publicly available in Australia, "**available** in Australia¹" here meaning capable of being accessed or otherwise directly available in Australia.

Both novelty and obviousness would then become matters for consideration by the Commissioner before grant.

The restriction to a single claim was imposed principally to confine petty **patents** to single embodiments of the inventions to which they relate. It was also expected to facilitate examination of the applications, thereby reducing the time and cost required to **be** expended **upon** examination by the Patent Office. **However**, the Commissioner has informed the Committee that the time and cost required for examination will not be greatly increased by allowing more than 1 claim if the number is limited to 3 claims in dependent form (that is, with 2 subsidiary claims tied to and within the scope of a main claim).

[16] WE RECOMMEND that a petty patent be permitted to include up to 3 claims in dependent form.

It is basic to our proposal for a two-tier system of standard patents and petty patents that the term of petty patents should be unchanged.

[17] WE RECOMMEND that the term of a petty patent continue to be 1 year from the date of sealing, with provision as **now** for extension for an additional period expiring 6 years **from** the filing date of the petty patent specification.

A standard patent application may take some years to proceed to grant. Petty patents are therefore sometimes used as a **&vice** to obtain protection rapidly for a commercial embodiment of an invention which is broadly claimed in a **concurrent** standard **patent** application. This **situation** arises particularly when

a competitor of the applicant is undertaking or seems likely to undertake actions which would infringe the patent if it were **granted**. In these circumstances there are two techniques which may **be** adopted. First, some applicants simultaneously lodge standard and petty patent applications for the same invention. Second, there is an increasing practice whereby an applicant for a standard patent files a petty patent application as a divisional application. In either case a petty patent, if granted, may have to be abandoned in order to obtain acceptance of the standard patent application, since Patent Office practice is to object to claims in concurrent applications by the same applicant if those claims have the same priority date and are identical in scope.

These techniques, in addition to offering quick protection, enable an applicant to delay a choice between standard and petty patent protection until much later than the application date. That choice would become more important for applicants if our recommendations for a two-tier system were implemented.

From the broad economic perspective, if applicants were permitted to convert freely from petty to standard applications and vice versa, the social cost savings which we expect to arise from introduction of a two-tier system (see Section 7.1 above) would, in the **view** of a majority of the **Committee**, be considerably **diminished**. It has been argued in the Committee that the social **cost** implications would be **non-existent**, or at least would not be so significant as to warrant any consequential change to the present legislation and Patent Office practice relating to concurrent and divisional applications. The majority disagrees and sees a need for certain controls over these practices in order to **ensure** social cost savings.

The majority **considers**, however, that applicants should not suffer excessive delays before they can take infringement proceedings, and that the choice between petty and standard patent protection ought not to be required at such an early stage that it would be based on inadequate information. Further, the mechanism for controlling concurrent applications must not be so complex or stringent that the attractiveness of petty patents to Australian applicants would be significantly reduced.

A number of factors bear on the speed with which a patent may be granted. Existing provisions enable applicants to make early requests for examination (see Section 12.1 below) and to request expedited treatment where a request for examination has already been made. In such cases an **examiner's** report will normally issue within a few **weeks** of the request. This may be of little use at present since opposition proceedings **can be used** by a determined opponent to delay grant for some years. We recommend elsewhere that opposition proceedings be abolished in favour of a speedy ex parte **re-examination** procedure (see Sections 13.1 and 13.3 below). If that recommendation were implemented, the existing provisions for early request and expedited treatment would enable a standard patent to be granted rapidly, assuming there is no delay by the applicant or the patent attorney, in responding to the Examiner's report or otherwise. The majority of the Committee considers that there would then **be** no justification based on the need for speedy protection for permitting a divisional petty patent application to be made from a standard patent application, and would deny applicants that possibility. Divisional applications for a patent of the same type would be unaffected (for example, where an application is for more than one invention).

The time at which an applicant is forced to choose between standard and petty patent protection could **be** postponed for 12 months by permitting either a petty patent specification or a complete specification to be lodged upon a provisional specification (see Section 8 below). At present the provisional specification

procedure is available only for standard patent applications. An applicant lodging an application with a provisional specification need not then **be** compelled to specify at that time whether he **seeks** a petty or standard patent. The majority would favour this change, which would **allow** additional time to carry out further development of the invention and international prior art searches before the choice is made.

It **remains** for us to consider what should be the appropriate method of dealing with concurrent applications for the same invention. The majority would require an applicant with concurrent applications for both a standard patent and a petty patent in relation to the same invention and having the same priority date to elect to proceed with one and withdraw the other. This would be accomplished by providing that **grant** of a patent on either application would preclude **grant** on the other, notwithstanding that the first granted may subsequently be found invalid, cease or be abandoned. In this context, the "same invention" does not mean that the claims must be identical in scope, but connotes any overlap in scope.

[18] WE RECOMMEND -

- i** that divisional applications for petty **patents** not be permitted from standard patent applications, and vice versa;
- ii** that the provisional specification procedure be available for petty as well **as** standard patent applications; and
- iii** that grant of a standard patent not be permitted where there has previously been granted to the same applicant a petty patent for the same invention and having the same priority date, and vice versa.

One member of the Committee, Mr. Ryan, dissents from the first and third of these recommendations. He considers -

- i** that there is **no** valid objection in law to the concurrent holding of a petty patent and a standard patent, and there is **no** basis in policy for such an objection (if there is any doubt as to this, he considers that such doubt should be removed by legislation);
- ii** that at any time during the pendency of either a petty patent **or** a standard patent application, it should **be** possible to file a divisional application for either a petty patent or a standard patent without affecting the continued viability of the parent application from which it was divided; and
- iii** that at any time within 5 years from the date of a standard patent (as presently defined) the owner of the standard patent should **be** entitled to surrender the standard patent and obtain a petty patent having a term not greater than the unexpired **portion** of the period of 6 years from the date of the original standard patent.

His reasons are **as** follows:

- i** The cases in which both standard and petty patents are presently sought are rare, and principally confined to those cases where an inventor needs to take urgent action for infringement. The procedural advantage thus provided to inventors should not be removed.
- ii** It is not true to say that the need for speedy protection is met by the removal of the opposition procedure and the provisions for expedited examination. Currently, examination delays of 3 years or more from filing are common, and even where the examination is expedited it is rare for the examination process to **be** completed in less than 4 to 6 months from the date of the request for expedited examination. Thereafter, if our recommendations in Section 13 with respect to re-examination are accepted, there will **be** a further **&**lay of at least 3 months before a patent is sealed. This will preclude speedy action for infringement.

- iii **If** our recommendations for the establishment of a two-tier system are accepted, there will be borderline cases where an application is made for a standard patent for an invention which clearly qualifies for the grant of a petty patent, but in respect of which there is **doubt** as to whether there is subject matter for the grant of a standard patent. In such a case the applicant may legitimately wish to pursue a right to obtain a standard patent, even to the extent of an appeal to the court. Such applicants should be entitled to the quick protection of a petty patent, whilst the standard patent application is pursued.
- iv An applicant for a patent **or** a patentee is never finally certain as to what prior art may **be** cited against him. This will **be** so, particularly in the case of a standard patent application where publications anywhere in the world will be citable. Such publications may be a bar to a standard patent but not to a petty patent. Therefore an applicant or a patentee should **be** able to convert from a standard patent application to a petty patent application or to substitute a petty patent for a standard patent when faced with such art, provided only that the normal term of a petty patent is not exceeded.
- v There will be no increased social cost. Applicants whose inventions warrant only a petty patent will get only a petty patent whatever route is followed. Those whose inventions warrant a standard patent should not be forced by procedural obstacles to accept less.
- vi The petty patent system has been **designed** to benefit local inventors. The restrictions placed on petty patents by the recommendations **of** the majority will seriously detract from the usefulness of the system. Australian applicants should not be deprived of a full benefit to the system merely because some use may **be** made of it by a foreigner.
- vii A requirement that any overlap in the scope of the claims of two patents be prohibited is obviously unworkable. If that were the case there could never be a patent for an improvement of an earlier patented invention.
- viii Because of the change of the novelty and obviousness provisions for standard patents, the petty patent system can now operate as a true **"second tier"** protection. Its use should be encouraged with the minimum of procedural obstacles. Experience should quickly show whether the free convertibility of applications from standard patents to petty patent applications, and vice versa, is being abused, and if so, corrective action can then be taken.

8 PROVISIONAL SPECIFICATIONS

Australia, in common with certain other Commonwealth countries, provides a system for establishment of a priority date for an invention by the filing of a patent application accompanied by a **"provisional"** specification. An applicant must, in order to maintain the application, file a complete specification, including claims, within twelve months. Retention of the earlier priority date for a claim will depend on whether it is fairly based on matter disclosed in the provisional specification.

Only about 25% of all applications filed with provisional specifications proceed to completion. However, almost all provisional specifications are lodged by Australian applicants. We believe that the provisional procedure is of value in providing a less complex and cheaper first step in the patenting process. The procedure gives Australian applicants the opportunity to revise their specifications within 12 months of filing. This can be important for Australian applicants in establishing priority over other workers in the field, since foreign applicants tend to file initially with a complete specification at a later stage in development.

It has been submitted to us that the provisional **specification** procedure can act as a trap to an Australian applicant who later applies for patents abroad, in that the provisional specification may **be** drafted informally and in some countries may prove inadequate to provide a basis for claiming priority under the Paris Convention. We **recognise** that this danger may exist but we **do** not think it provides a sufficient reason to sacrifice the advantages discussed above. It may **be** that applicants and their advisors should **be** more **conscious** of the problem but that is a matter for education and advice and does not warrant elimination of the procedure. It is noteworthy that several submissions favoured its retention.

[19] WE RECOMMEND that the provisional specification procedure be retained.

We note that in most countries, including Australia, there are provisions in the national law for a "**grace period**" which renders certain disclosures of the invention **by** or **emanating** from the inventor not prejudicial to the grant of a patent. Section 158 of the Australian Patents Act renders **non-prejudicial** certain disclosures at exhibitions, in papers presented to learned **societies**, and to government regulatory authorities; disclosures for the **purpose** of necessary public experimentation; and disclosures in **breach** of confidence by a third **party**. Some other countries **render non-prejudicial** some, but not all of these disclosures, and yet others, notably the US and Canada, treat as **non-prejudicial** any disclosure emanating from the inventor for a certain period (12 months in the case of the US). The question of the "**grace period**" is currently the subject of a study **by** the World Intellectual Property **Organisation**.

Our view is that there may **be** certain advantages to Australian applicants if a general grace period were allowed in respect of any disclosures emanating from the inventor, but we **consider** that it would be unwise for Australia to legislate unilaterally to provide any extension of the existing grace period provisions. To do so would lead local inventors to rely on the grace period in this country with consequent destruction of rights in foreign countries which do not provide a grace period in corresponding circumstances. The problem must therefore **be** approached internationally, and the progress of the WIPO study should be followed. In the meantime, the availability of the provisional specification procedure **goes** some **way** to meeting the problem, since if a provisional specification is lodged, disclosures **can be** made without loss of rights. Australian inventors should follow this procedure wherever possible, and not rely even on the limited grace period provisions currently available under section 158 of the Act, since corresponding provisions are not available in every foreign country in which a subsequent application for protection might be made.

9 INNOVATION FROM EMPLOYEES' INVENTIONS

Where an invention made **by** an employee is not taken up **by** the employer, public benefit may be gained by permitting the employee to use the invention. New entrants to industry may be enabled, and the incentive effect of patents in stimulating innovation may **be** greater **by** making **potential** returns available to the individuals who actually conceive inventions. If some form of reward, **by** direct payment and/or a right to take out a patent, were given to employees, both workforce and management would be encouraged to be more aware of the commercial possibilities of innovation. Some 34 other countries including West Germany, France, UK, Japan, Canada and **Sweden** now operate statutory systems giving rights or rewards to employee inventors.

Consideration of employee inventors is often restricted to questions of ownership of and reward for inventions made **by** employees. Under the common law, an invention made **by** an employee in the course of his employment is the property

of his employer, whereas an invention made by an employee other than in the course of his employment is the property of the employee. Rewards such as bonuses and royalties are left to the contract of employment, which may or may not provide for them.

In addition to an open invitation for submissions on this question, the Committee made direct approaches to more than 80 employer organisations, professional associations and trade unions. Of about 25 submissions received on the question, nearly all expressed satisfaction with the common law position. We can see no reason based on notions of equity why the present position in relation to ownership should be changed. We have not seen evidence of a sufficient incidence of injustices or disputes about ownership to warrant any change to the law on that account.

But issues broader than ownership and equity also arise here in the context of the public good. These concern the encouragement of invention and disclosure, and more particularly of innovation and utilisation of new technology. They are most pertinent in the case where an employee's patentable invention was made in the course of his employment, and so is owned by his employer, but the employer for some reason does not make use of it or intend to make use of it.

If the employer in these circumstances obtains a patent, the compulsory licensing provisions (see Section 4 of this Report) provide an avenue for the employee or a third person to seek permission in some circumstances to work the invention. If no patent is obtained and the invention is publicly disclosed, it will pass into the public domain and no special provision is required. Where, however, there is no patent, no publication, and no use or intention to use on the part of the employer, there may be an argument for the employee inventor to seek and obtain a patent.

The position will vary from case to case. There will be situations in which it would be entirely inappropriate to permit the employee to patent and work the invention. For example, non-use of a particular invention may be crucial to enable the employer to use other related inventions economically. On the other hand, there will be situations in which it may be desirable as a stimulus to innovation to permit the employee himself to patent the invention. For example, the particular invention may simply be outside the employer's economic interest.

Such measures would, in a sense, depart from the general principle that the owner of an invention is not obliged to make use of, publish, dispose of, or patent his invention. We believe that such a departure would be generally palatable only where the person seeking to make use of the invention is the actual inventor. He will already be privy to the relevant information.

The Committee is divided over the likely value of attempting to introduce any measures of this kind. Some members believe that the idea would have significant value from the viewpoint of the national interest in promoting indigenous innovation, and see benefit in the introduction in Australia of a system similar to that which operates in Germany or the UK. Other members of the Committee doubt the need for and the likely value of such a scheme, and see it as likely to create more difficulties and costs than it would be worth.

Overall, a majority of the Committee feels that there may be worthwhile advantages in giving employee inventors certain rights and opportunities, notwithstanding the difficulties which may be involved in any such scheme.

However, they also agree that the matter should first receive more **investigation**, looking particularly to the operation and effects of schemes existing in other **countries**.

[20] WE RECOMMEND that the desirability of introducing a scheme giving rights or opportunities to employee inventors, including the right in some circumstances to take out a patent, **be** further studied.

10 PATENT INFORMATION

10.1 Characteristics

Patent documents which are made publicly available by national patent offices constitute one of the largest repositories of technological information in the world. The accepted international patent data base comprises 16 million documents, averaging 16 pages per document, and has an annual growth rate of approximately 500,000 documents. Considered collectively, they provide a comprehensive history of technological development by recording almost all technological advances. Thus they are a source of past and current technological information which describes the invention and its novelty with reference to the existing state of the art. This is not to say that patent specifications would ordinarily suffice **as** a sole source of technological information.

Patent documents provide a unique collection of bibliographic, technical and legal information. The bibliographic component informs users of the title of the invention; the names of the inventor, applicant or patentee; the prima facie priority date of any patent claim and the particular field of the invention. The technical information covers the description of the invention, how it may be performed and its prior art background. The statement of claims, defining the technical scope of the patent monopoly, provides the legal information (which also includes data on the status of the application or patent).

Domestic and foreign patent documents have a **standardised** structure and format. The bibliographic information is furnished according to a numerically coded format ensuring uniformity (**INID** Numbers) and the International Patent Classification (IPC) is applied either **as** a primary or subsidiary classification on patent documents. It is used on approximately 90% of published patent documents.

Studies have found that much of the technical information in patent documents is not, or is only some years later, disclosed elsewhere. Indeed, one study found that less than 10% of the information contained in patents appears in other technical literature **media.**(25) The reasons for this might include poor technical content, lack of awareness on the part of potential users, and the difficulty or cost of accessing or interpreting the **informatic**.

10.2 Recent policy reviews and user studies

In the last decade a number of Committees of Inquiry, Reports and a White Paper have dealt with the issues of scientific and technological information, and its importance and accessibility to Australian users.

Some of these reports revealed that there is a large potential demand for information in Australia among people who are unaware of their own information needs or unaware of the fact that these needs can be met from existing publicly available sources. They also suggest that there is an urgent

requirement for a national information policy, including a pooling of information services and an educational programme to acquaint users with the potentials of various information systems.

Such a policy needs to embrace, if not co-ordinate, major national repositories of technological information held by the National Library, State, CSIRO and University Libraries, and of course the Australian Patent Office. The increasing variety and number of Australian and foreign data bases accessible on-line (or via searching agents) also **needs to be recognised** and integrated into such a policy. These matters are beyond the scope of this Report.

With regard to the technical element of patent information, the Senate Standing Committee on Science and the Environment noted that:

"Patent information allows industry to become aware of new technology and innovations for possible purchase. ... **However**, the patent information must be readily available in acceptable **format**".(26)

In 1979 the WIPO Permanent Committee on Patent Information (**PCPI**) decided that the identification of the users of patent information and their needs was a matter of international importance. Accordingly, pilot studies were undertaken in 1980 in Australia, as a developed **country**, and in Brazil, as a developing country.

The Australian survey concluded, in part:

"**Although** a large percentage of industry has consulted patent literature before, there may still be some 14,000 **medium-size** and small manufacturers who have not done so, together with about one third of government departments and tertiary education institutions ... The main reasons for **consulting** patent information are checking on potential infringements and considering **new products or processes**".(27)

The findings of the Australian survey in respect of the nature of users and their **uses** for patent information are broadly comparable with the Brazilian pilot study, the **Battelle** Study for the EEC and other studies.

Since 1980 a number of surveys of patent information users, both domestic and foreign, have been published. The domestic surveys related to this **Committee's** inquiry, and they covered Australia's largest manufacturing companies, patent attorney clients, industry patent applicants, professional engineers and individual inventors. Foreign surveys have reported on industrial enterprise in the Newcastle region of the UK and US engineers. The surveys confirm that the major reasons for using patent information in Australia are directly related to patenting activities; that is, they are legal rather than technical.

Besides the use of patent records to conduct novelty and infringement searches, another **important** legal use of patent information is to monitor the status of the patent rights granted to, or being sought by, others. For this purpose it is **important** that potential competitors be able to readily obtain accurate and **up-to-date status** information direct from the Australian Patent Office. The current efforts of the Patent Office to put this data on-line to all Sub-Offices is therefore strongly commended by the Committee.

In respect of technical information, the Australian surveys found, as also have foreign surveys before and after 1980, little awareness of the existence or value of patent information and **how** it could **be** used.

The Australian surveys asked respondents to rank their main sources of technological information. Large and small **firms** in Australia ranked patent information low, but large **firms** based overseas accorded it second place after technical and trade journals. The Australian survey of engineers found word of mouth communications **provided** an important source of information. Both this survey and the US survey of engineers found that engineers made very little use of computer data bases for information. Nevertheless, it is clear that **awareness** and use of international on-line data-bases (which include patent information) are increasing rapidly in Australia.

The Committee believes that the **low** ranking of the patent information resource in Australia is, in addition to lack of awareness, also in part due to the unfamiliarity of the public with the format and language of patent documents. This difficulty would **be minimised** if each patent specification was accompanied **by** a fair summary in plain English of the invention. This would **be** directed for the benefit of the public and would not affect **the** interpretation given to the specification and its claims. This abridgement would be lodged by the applicant but the Patent Office would have the right to amend the abridgement at any time prior to grant of the patent. We recommend that the amendment to section 34 of the Patents Act, consistent with these objectives, which was included in the Statute Law (Miscellaneous Provisions) Act (**No.2**) of 1983, be proclaimed.

A further use of patent information is the use of patent statistics for economic policy purposes but they are incompatible with **most** available economic data. Economic data is presented in the Australian Standard Industrial Classification (ASIC) format, whereas patents are classified on an entirely different basis, the IPC. The usefulness of patent statistics would **be** considerably improved by additionally classifying patents on an SIC basis, as has been done by the Canadian Patent Office for some years. The classification should extend to both industry of origin and industry of application.

While surveys and studies can indicate the nature and usage of patent information, and while the recommendations of the Committee are **designed** to enhance its value to Australian industrial (and other) users, its **potential** value is difficult to estimate. **As Stephenson** observed:

"The absence of **evidence** of the value of patents to industry may be because proof of value requires that kind of **detail** which companies are loath to make generally available or, **more** likely, because there appears to be no universally acceptable way of measuring the cost effectiveness of either gathering or distributing **information**".(28)

10.3 Use of patent **specifications**

The information contained in a published patent specification is disclosed with a view to its use for technological development, subject to the rights of the patentee. It would be inconsistent with this purpose to permit restrictions to be **imposed** on the use of that information by virtue of any copyright which might subsist in a specification and particularly in any drawings it may contain. **For** example, the construction of an article represented in a drawing may constitute a three-dimensional reproduction of the drawing as an artistic work under the Copyright Act, and therefore infringe copyright in the drawing.

The questions of whether copyright subsists in a specification and of who is the copyright **owner** are not well settled at law. Another question is possible infringement of copyright in a drawing of which a drawing in a specification is a **substantial** reproduction. It is not necessary here to explore the law in detail. A majority of the Committee considers, however, that **amendment or**

clarification is necessary to ensure that the purpose of **disclosures in** patent specifications is given its full effect, **notwithstanding** that this may weaken any copyright which might **subsist under** the present law.

First, **it** should be placed beyond **doubt** that the Patent Office is legitimately able to continue its present practice of reproducing, and supplying to the public, copies of all **specifications** held by the Office. Second, there should be no restriction arising from copyright on carrying out or producing any process **or** article described or shown in any published patent specification. This should be the case notwithstanding that a patent has not been or is not subsequently granted, that the patent or certain claims may not be valid, that the process or article in question is not the subject of any claim in the specification, or that the application or patent has lapsed, ceased, or been withdrawn or abandoned. Any patent rights associated with the **specification** would not, of course, be affected.

10.4 PCT Searches

The Patent Office is an International Searching Authority pursuant to the Patent **Co-operation** Treaty (PCT). This function involves searching a patent application for novelty against a data base known under the Treaty as the "**minimum documentation**". This documentation comprises all published **patent** specifications of **all** industrialized **countries** since 1920 and some 120 technical journals. The results of these searches are a valuable source of technology information. We believe that the Patent Office should continue to improve the quality of its PCT searches and to make search results available to the public at regular intervals.

10.5 The Australian Patent Information Service

The case for **patent** information officers is succinctly stated by Stephenson:

"Where there is an intermediary between the information supplier and the end-user a level of relevance **could** be established quickly to the ultimate benefit of both parties. This suggests that a missing link in the chain of effective patent information is the dynamic influence of a lively exploiter being or acting as a (patent) information officer, who can position himself between the information and its potential users. The case for the creation of these links in industry and patent libraries is so clear that they are **now** more important, perhaps, than the provision of more information to underused **collections**, which can only compound the **user's** problems of finding and using what he **needs**".(29)

Domestic and foreign surveys indicate that actual and potential users of patent information can benefit from educational and promotional activities. In Australia this role has been undertaken by the Australian Patent Information Service (APIS), which has engaged in such activities as lectures on **patents** and **patent** information to **university** students and staff and professional bodies, regional seminars, the development of a series of audio-visual lectures on patents, and attendance at field **days** and **trade** exhibitions.

APIS was instituted in 1978, operating initially from Canberra. It now has officers located in the Sydney and Melbourne **Sub-offices** to handle local enquiries.

One of the objectives of APIS is to increase industry awareness of on-line international data bank services and APIS seminars usually include a demonstration of one or more of them. We consider that such awareness should be **fostered** to encourage a greater **direct** use **by** industry of technology information data banks.

By virtue particularly of its role as a **PCT** International Searching Authority, the Patent Office is uniquely equipped to play a much larger role in the dissemination of technology information to the Australian community. It not only has one of the largest bodies of technological data in Australia, but it also has the necessary librarian and technical expertise to locate and interpret patent specifications. It has in recent years made and published evaluations of specific fields of technology, for example, in solar energy, genetic engineering, cheesemaking and ceramic clays. Major studies should **be** undertaken jointly with external technical and scientific experts and industry and, where appropriate, a charge should **be** made to users.

The Committee considers that these activities should continue at an **expanded** level not only to disseminate technology information more **broadly** but also to **demystify** the new technologies.

10.6 **Recommendations**

- [21] WE RECOMMEND** that the Patent Office -
- i** classify patent documents according to the Australian Standard Industrial Classification in addition to the International Patent Classification;
 - ii** upgrade storage, access and dissemination of patent information by computerisation of Patent Office data;
 - iii** continue to improve the quality of its searches **under** the Patent Cooperation Treaty and to make search results available to the public;
 - iv** continue promotional and educational programmes with a view to increasing public awareness of the source and value of technology information;
 - v** decentralise the patent information services as far as possible, including the provision of facilities for on-line access by users to the Patent Office data base and the international data base, in the Patent **Sub-offices** and elsewhere, and of more technical information officers in the State capitals; and
 - vi** continue to prepare and make available, in general and on request, on a fee basis where appropriate, technology evaluation studies to assist Australian industry with industrial and technological **development.**
- [22] WE RECOMMEND -**
- i** that the **unproclaimed** amendment of section 34 of the Patents Act which relates to lodgment of abstracts be proclaimed and implemented, so as to require applicants for letters patent to provide a fair summary in plain English of the contents of the patent specification, not to affect interpretation of the specification; and
 - ii** that the Patents Act be amended to ensure that any published patent specification held by the Patent Office, including any drawing it **contains**, may be freely copied or reproduced without infringing any copyright in that specification or drawing or in any work of which it is a substantial reproduction.

PART E

EFFICIENT OPERATION AND ADMINISTRATION

One of the economic considerations confronting the Committee is the efficiency of the **Australian** patent system in terms of **both** its operation and its administration. Although the administrative costs generally represent a small fraction of the total costs of innovation, the "**front end**" costs, such as those associated with the making of the application and the search and examination, are usually incurred well before there is any certainty of a commercial return. Our aim in this Chapter is to eliminate unnecessary costs. This involves seeking to improve the certainty, simplicity and expedition of procedures for applicants, patentees and third parties. It is necessary, of course, that there be administrative procedures, but these ought to be as efficient as possible so that patents are simple to obtain, to enforce, and to challenge.

11 PROCEDURES GENERALLY UNDER THE LEGISLATION

A constant theme throughout submissions to the Committee is that the procedures established by the Patents Act are unduly cumbersome and complex, and that one of the effects of this complexity is to cause uncertainty and delay which is **costly** to all parties. The complexity is in part a product of the patchwork amendment of the legislation to cope with special cases which has taken place since the last thorough revision in 1952.

We make specific recommendations elsewhere which are designed to simplify particular aspects of the legislation and to facilitate ease of access to the procedures for obtaining, maintaining, and challenging the validity of a patent. Our aim is to decrease the administrative burdens and consequent costs imposed by the present legislation, both on patentees and third parties.

In addition to the changes already suggested, everything possible should **be** done to streamline the provisions and procedures of the Patents Act. As a general aim, procedures before the Office should be sufficiently simple and free of exceptions for an intelligent layman to **be** able to understand and use them.

An **example** which deserves special mention is provided by time limits and their extension. The number of steps involved in obtaining or challenging a patent is surprisingly large, although we **recognise** that most are intended as checks and balances with a **view** to the interests of patentees, their competitors and the public, as well as the administrative convenience of the Patent Office.

There has been an increasing awareness, internationally, of the need for provisions to alleviate the harsh effect of inadvertent failure to comply with time limits in the prosecution of patent applications and the World Intellectual Property Organization has commissioned studies on this subject.

In the public interest and for the sake of administrative efficiency, time limits must **be** set for the performance of steps and sanctions must be imposed for failure to observe them. In most cases under the present Act, the sanction is the lapsing of the application, with consequent loss to the applicant of all rights in relation to the invention. **We believe that as a safety net is necessary** where failure to meet a time limit is unintentional and is due to human or mechanical error or some external circumstance.

Such a net is already present in the Act. In a large number of cases there are special provisions for extension of time limits. There is also a general provision contained in section 160 of the Act conferring upon the Commissioner a discretion to grant extensions of time where a procedural step is not taken due to an error or omission on the part of an officer of the Patent Office, or of the applicant or his attorney, or in circumstances which are beyond the **control** of the person concerned. In 1981 this Committee reported on the application of section 160 to the filing of applications claiming priority under the Paris Convention. The doubt and **controversy** which led to that **reference** have been removed by subsequent appeals in the courts and revised Patent Office practice.

Apart from recommendations made elsewhere, we do not think it appropriate to **suggest** further specific procedural changes. Many procedures necessarily depend on decisions to be made by the Patent Office as to which are more efficient administrative procedures. However, we consider that in determining the procedures **and** the sanctions for failure to perform them, the following criteria should **be** applied:

- i The number of separate steps and procedures prescribed should be as few **as** possible, and the creation of special **categories** should be avoided. Where variations in procedure are necessary to accommodate special cases, this should **be** done by conferring discretionary powers upon the Commissioner in relation to generally applicable procedures, rather than by the creation of special separate procedures.
- ii The nature of the sanctions imposed for failure to comply with a step or procedure should be critically examined. **The** ultimate sanction of lapsing of the application should apply only where there is good reason. In other cases, **alternative** sanctions such as monetary penalties should be applied.
- iii Separate procedures for extension of the time for performing particular steps should be avoided so that so far **as** possible all extensions are dealt with under the provisions of section 160.
- iv Adequate provisions should be made for the compensation of any third parties affected by the grant of an extension of time.

[23] WE **RECOMMEND** that the patents legislation be reviewed and completely redrafted to streamline **procedures**, particularly with a view to eliminating unnecessary steps and procedures, avoiding special categories, and establishing appropriate sanctions for **non-compliance**.

12 SEARCH AND EXAMINATION

12.1 Examination

Australia has a system of examination of standard patent applications on request. Examination is not automatic but must be requested by the applicant or a third party within five years from filing, or earlier upon a direction by the Commissioner. Examination on request offers an advantage to an applicant needing additional time to further **assess** the commercial prospects of the invention before incurring expense on **prosecution** of the application. Early examination is available to an applicant who chooses it, on payment of an additional fee. Competitors face prolonged uncertainty as to whether a patent will finally be granted, but on the other hand they are also entitled to require examination at an earlier stage. From the viewpoint of administration of the system, examination on request **eliminates** unnecessary and wasteful resources spent on examination of applications which the applicant decides at a later stage not to pursue further.

The **Australian** system differs from that adopted in other countries in that the Commissioner may issue a direction to an applicant to request examination. This enables the rate at which examination is initiated to be controlled. (At present, directions are generally issued about two years after filing). There are also provisions enabling earlier directions where, for reasons of conflict between co-pending applications or of national interest or other reasons, it appears to the Commissioner in a particular case to be desirable. The lack of international uniformity has no practical importance. Overall the system operates smoothly and has adequate safeguards for both the patentee and the public.

There are two procedures **commonly** adopted in the world for searching and examining **patent** applications. In Australia and the US, for example, the prior art search and the substantive examination of the application in the light of that search are carried out at the same time and usually by the same person (the examiner). In the UK and under the European Patent Convention, the prior art search is carried out before publication of the application, and substantive examination must **be** requested within 6 months of publication.

There is no doubt that advantages accrue to both the applicant and third **parties** as a **result** of the earlier availability of search results at the time of publication of the application, particularly in view of the increasingly sophisticated facilities for gaining ready access to the international patent information system.

We doubt, however, that separation of search and examination leads to the most efficient use of Patent Office resources. The assessment of novelty and obviousness during examination requires the examiner to be intimately familiar with the search. With the aid of modern searching tools, direct access to search material by examiners, with less need for specific expertise in searching, is becoming easier. Published material from the **UK** Patent Office and the European Patent Office suggests that separation of search and examination has not achieved significant reductions in workloads of those Offices.

We believe that the validity of granted patents depends less on the timing of search and examination than on the quality of the search and the **data** base. On balance, we feel that search and examination functions should be performed concurrently. This would not interfere with the availability to the applicant of earlier searches, on request, as a separate facility outside the normal examination process (see Section 10 of this Report). Such searches could be used by examiners as an adjunct to searches in the normal course of examination.

[24] WE **RECOMMEND** that the present system of examination on request and of combined search and examination be retained.

12.2 **Modified** examination

Within the ambit of the examination on request process, the Patents Act includes provisions for modified examination. Under these provisions, an applicant who files a Convention application in Australia, and who has been granted a corresponding patent for the same invention in the UK or the US, may apply to have a **patent** granted in Australia on the identical specification and claims as the earlier **UK** or **US** patent. The rationale is that a corresponding application has already been subjected to examination in an English speaking country with examination standards **comparable** to Australia's. Accordingly, **examination** of the application in the **Australian Patent Office** is limited to matters of formality and conformity, and only a limited search is carried out. In effect, this procedure avoids duplication of earlier searches.

The procedure has the disadvantage that the Australian application is not examined for **compliance** with all the requirements of the Australian Patents Act, and the form of the specification frequently does not conform to Australian practice. More importantly, many matters not considered during modified examination may still be raised after grant in revocation proceedings. This leads to uncertainty both for the applicant and the public. Given our recommendation **below** concerning notification of earlier search **results**, and the availability now of the provisions of the Patent Cooperation Treaty, we can see no reason for retaining the modified examination procedure.

[25] WE **RECOMMEND** that the present system of modified examination be abandoned.

12.3 Notification of earlier **search results**

Practical measures are needed to ensure ready access to earlier search results in respect of an invention or of corresponding patent applications in other countries. In a number of countries, applicants are required to notify the patent office of the results of any searches carried out in other patent offices. To avoid duplication of searches and to encourage stronger patents, we believe that it is appropriate to impose some requirement on applicants to notify previous search results.

In the US, applicants are under an obligation to bring to the attention of the examiner all pertinent prior art known to them. This is enforced by a combination of two measures. First, a statement made by an applicant in the course of the prosecution of an application before the US Patent Office creates an estoppel **against** reliance upon a contrary proposition in any proceedings brought in respect of the patent ("**file wrapper estoppel**"). Second, any deliberate misstatement, or any failure upon the part of the applicant to bring to the attention of the examiner any pertinent prior art material or any other relevant fact known to the applicant affecting the **applicant's** right to grant of a valid patent, constitutes a "**fraud on the Patent Office**" and will invalidate the patent.

There are no precisely **comparable** doctrines in Australian patent law but a patent may be revoked on the ground that it was obtained on a false suggestion or misrepresentation. The false suggestion or misrepresentation must be material to the extent that the Crown was deceived in making the grant of the patent. We would prefer this to the very broad requirement in the US which can lead to great **uncertainty** and long, complicated and costly **pre-trial** proceedings for discovery of documents when validity is in dispute.

It **would be** practicable to restrict the requirement to notification only of search results carried out by official authorities and other prescribed **organisations**. The disadvantages of a potentially partially incomplete disclosure would generally **be** outweighed by the advantage of certainty as to what is required.

The time at **which** the requirement must be met should also be defined in the interests of certainty. The most practical cut-off point is the time of filing the request for examination. To ensure stronger patents, it **would be** possible to require additional **notification** of any subsequent search results. This might seem logical if different patent offices are examining at the same time, but it would be an additional administrative burden on applicants. We believe it **would** be sufficient to require the notification to **be** updated to the date on which the application is accepted.

[26] WE RECOMMEND that applicants be obliged at the time of filing a **request** for examination to notify the Patent Office of the results of all searches carried out previously by patent offices, official authorities, or other prescribed organisations, in respect of the invention or corresponding applications in other countries, and subsequently to update that notification to the date of acceptance.

12.4 Examination for **obviousness**

At present the question of obviousness may not be raised by the examiner during examination of an application, but is a ground both for opposition to grant and for revocation of a patent. In view of our recommendations in Section 7 that the standards of novelty and obviousness be changed and in Section 13 **below** that the pre-grant opposition procedure be abolished, we believe that both novelty and obviousness ought to be matters for report by the examiner during examination of an application.

[27] WE RECOMMEND that both novelty and **obviousness** of an invention be matters for report by the examiner.

12.5 Publication of **patent** files

When an application for a standard patent becomes open to public inspection, not all documents in the file are affected. The Patents Act specifically provides that examiners' reports shall not be open to public inspection.

The practice of the Patent Office is to treat **correspondence** in response to reports as also not being available, but in legal proceedings in respect of a patent, such reports and correspondence in the patentee's possession are discoverable documents.

In the case of petty patents all documents lodged in respect of the application and all documents sent by the Office to the applicant become open to public **inspection**. We consider it desirable in the public interest to extend access to all information on the file of both standard and petty patents.

A broader right of access in more general terms is given by the Freedom of Information Act. We subscribe to the approach of that Act in relation to documents on patent files, while noting that it may not have been framed with a view to use by competitors wanting to obtain commercial information about patentees. The classes of exempt documents under the Freedom of Information Act are such as to adequately safeguard patentees' rights and the public interest, particularly those exemptions relating to national security and **defence**, and to trade secrets, business, commercial and financial affairs.

Prior to the date on which a specification becomes open to public inspection, however, the applicant is entitled to expect absolute confidentiality for his application, examiners' reports and any correspondence concerning it.

[28] WE RECOMMEND that standard and petty patent application files be confidential until the date on which they become open to public inspection, but that after that date, public access be granted to all documents contained on patent files consistently with the principles and subject to the exemptions contained in the Freedom of Information Act.

13 CHALLENGING GRANT OR VALIDITY

The complexity and expense of revocation and infringement proceedings has been a cause of much criticism of the operation of the patent system. Submissions to the Committee allege that a patentee is often unable to take adequate action to protect the patent because of the prohibitive cost of litigation. At the same time, it is said that a weak patent may be allowed to continue unchallenged because no prospective challenger is willing to undertake the risk of infringement and revocation proceedings.

It is in the interests of applicants and patentees, their competitors and the public generally, that objections to grant or validity **be dealt** with as expeditiously, expertly and consistently as is possible, without unduly sacrificing either fairness or the effective application of the relevant criteria. In particular, so far as practicable, the opportunity to challenge validity should be available to Australian industry without fear of endless and costly legal **battles**.

Interested parties, including competitors of an applicant **or** patentee, can make objections to the grant **or** validity of a patent. After an application has been laid open to public inspection and before acceptance by the Commissioner, written notice can be given to the Patent Office of a limited range of matters affecting validity. After acceptance but before grant of a patent, opposition proceedings on somewhat wider grounds can be undertaken in the Office. This involves both written evidence and an oral hearing of both parties by the Commissioner **or** his delegate. The **Commissioner's** decision is subject to appeal by either party to the Supreme Court of a State or Territory (as a prescribed court for the purpose of the Patents Act), and the appeal procedure is by way of complete rehearing. After grant of a patent, revocation proceedings can be **undertaken** (on wider **grounds** again) in a Supreme Court. Revocation most commonly arises by way of a counter-claim in an action for infringement of a patent, which must also be heard by a Supreme Court.

We **recognise** that no system of adjudication meets every need, but we believe the balance in this area can be better struck as outlined in the following sections. In broad terms, we believe that revocation proceedings in the courts should be retained, that inter **partes** opposition proceedings before grant should be abolished, and that an ex-parte re-examination procedure on questions only of novelty and obviousness should be available after acceptance of an application and after grant of a patent.

13.1 Opposition

The rationale usually advanced for pre-grant opposition is that it is in the interests of both the prospective patentee and the public that a patent, once granted, should be as strong as possible. Supporters of pre-grant opposition argue that the present system, including a hearing in the Patent Office, is an inexpensive and effective adjunct to examination and search in ensuring that weak patents are not granted.

However, a common purpose for which **opposition** now seems to **be** used is as a means for a competitor to delay the grant of the patent. This **&lay** is important since infringement proceedings cannot be commenced until after grant, although the patentee can then sue for **infringements** dating back to the publication date of the application. Opposition proceedings lasting 5 to 8 years are not unusual, and they have been known to extend beyond the time when the patent would, if granted, have expired.

The cost implications of lengthy opposition proceedings may also be very serious for a small inventor who has limited resources and **who** may be faced at the

same time with the need for an **expensive** advertising or marketing promotion to create consumer awareness of a new product. The &lay reduces the opportunity for an inventor to gain real benefit from a patent and is potentially inhibiting of innovation.

In fact, **opposition proceedings** may have the effect of enabling competitors to pirate the invention and to compete with the inventor directly for the whole of the commercially useful life of the invention. Where the applicant is a large company it may **be** able to bear the costs of the opposition proceedings and survive to take infringement proceedings against anyone who has used the invention between publication and grant. That is unlikely to **be** true of most Australian applicants.

We can see no sufficient reason for retaining the present pre-grant opposition procedure if other effective means of challenging **patents** can be made available. We note that most other patent systems, including those of the US and EEC countries, do not permit pre-grant opposition.

[29] **WE RECOMMEND** that the pre-grant opposition procedure be abolished.

13.2 Revocation

It has been proposed to us that jurisdiction might be given to the Commissioner, or an administrative tribunal from within the Patent Office, initially to **determine** proceedings for revocation of a **patent**. The basis of the proposal is that it **might** provide a cheaper way of disposing of arguments as to the validity of patents. There are comparatively few appeals from Office decisions in opposition **cases**, and this no doubt reflects a degree of confidence of the parties in Patent Office hearing officers.

We have not identified any **reasons** for thinking that this proposal, if introduced, would produce significant cost savings. Indeed, there is reason to think that the overall cost achievement might be adverse.

First, decisions by the Commissioner or another administrative tribunal to order or not to **order** revocation would be required for constitutional reasons to be subject to appeal to a court. Where important patents were involved, therefore, the suggested procedure would be likely to lead to duplication of proceedings, with resulting additional costs.

Second, questions of validity of patents usually arise in the context of infringement actions, and are often difficult to separate from the infringement issues. It would be necessary to retain in the courts trying infringement cases a concurrent jurisdiction to determine validity. Most arguments concerning validity would therefore continue to take place and **be** determined as part of infringement proceedings in the courts. The likelihood therefore is that the suggested jurisdiction of the Commissioner or tribunal would have little application.

As against these considerations, the proposals we make elsewhere for transferring all relevant court jurisdictions concerning **patents** to the Federal Court, are based on the belief that they will lead to the emergence of a specialist division or group of judges of that court **who** are in a position to deal expertly and expeditiously **with** all descriptions of patent matters.

In these **circumstances**, we are of opinion that efficiencies are more likely to **be** achieved by including revocation proceedings among the jurisdictions

transferred to the Federal Court, than by creating a separate jurisdiction in revocation proceedings by the **Commissioner** or some other administrative tribunal.

This approach also has the advantage that it will not further burden the Patent Office with quasi-judicial functions. In our opinion, generally speaking, the expertise of the Commissioner and his officers can be better utilised in other ways.

[30] WE RECOMMEND that jurisdiction to hear post-grant revocation proceedings not be transferred to the Commissioner but remain in the courts.

13.3 Re-examination

We have already mentioned the notification procedure in section 57 of the Patents Act which enables third **parties** to inform the Commissioner in writing, before acceptance of an application, of matters affecting prior publication, obviousness, prior claiming and novelty. The examiner must take such matters into account, and the applicant must be informed. The notifier has no specific right to a further hearing before the Office. This procedure could be extended to be available for 3 months after acceptance and at any time after grant, as a re-examination procedure. We think there is sufficient merit in the idea of such a procedure to warrant its implementation, subject to conditions to ensure that it **does** not create more problems than it solves, or involve more costs than it saves.

In this connection, we consider that matters permitted to be raised in re-examination should **be** restricted to documentary or other recorded matter affecting novelty and obviousness of the invention. Other questions such as the requirements of a full description and proper claims, manner of manufacture, and entitlement to apply, should be left to court proceedings to resolve. The procedure should be **ex parte**, not involving the notifier as a party, and at the **Commissioner's** discretion (so **as** to avoid the need to undertake pointless re-examinations based on **notificaitions** which are vexatious or otherwise without substance). A **report** should **be** sent to the applicant in the light of matters notified, giving appropriate opportunity to reply to an adverse report before a final decision is made. The applicant or the Commissioner of his own motion should also **be** able to instigate re-examination.

The Commissioner should **be** able to decide, as a result of re-examination, to grant, refuse, uphold or cancel a patent, or direct amendments. The applicant should have a right of appeal to a court from an adverse decision, but a notifier should have no corresponding right of appeal or review except such as is available elsewhere - for example, under the Administrative Decisions (Judicial Review) Act. **The** notifier would, of course, be able to take action in the courts in a revocation action, and should be confined to that course **as** the only one in which he can effectively contest the **Commissioner's** determination on its merits.

A procedure for **re-examination** after grant of a patent has been available in the US since 1981. Evidence **as** to the efficacy of that procedure is inconclusive, although such information as is available suggests that the procedure may have contributed to the **avoidance** or settling of litigation in a **significant** proportion of the cases in which it **was** used. There seems to **us** to be merit in introducing a similar procedure in Australia so **as** to **utilise** the expertise in the Patent Office to **decide** appropriate questions in the hope that this may reduce the cost of, or in some cases avoid the need for, court proceedings.

There would **also** be merit in **making** re-examination available on a patent which is the subject of a revocation action. This would provide an additional avenue to encourage parties to settle **disputes** on the basis of a **re-examination determination**. In these circumstances, re-examination should be available by order and at the discretion of the court in which revocation proceedings have been commenced. The Commissioner would then present his findings to the **court** which could take the result of that (or any earlier re-examination) into account.

[31] WE RECOMMEND that a procedure be introduced for **ex parte** re-examination by the Patent Office, with the following features:

- i to be available for 3 months after acceptance of an application and at any time after grant of a patent;
- ii the grounds to be limited to matters of novelty and obviousness based on published documents or recorded information;
- iii to be available at the instance of the applicant or patentee, a third party, or the Commissioner, except if infringement or revocation proceedings are or have been commenced in a court, in which case the court may order **re-examination**;
- iv the Commissioner to have **power** to grant, refuse, uphold, or cancel a patent, direct amendments, or present his findings to a court hearing a revocation action, as the case may be; and
- v the applicant or patentee, but not third parties, to have an **express right** of appeal from the Commissioner's decision, third parties having recourse to the courts only by way of revocation proceedings or **as** otherwise provided by law.

14 ENFORCEMENT OF PATENTS

14.1 Territorial operation of the Patents Act

A patent has effect throughout Australia, including Norfolk Island. The rapid increase in offshore exploration and the use of satellites in the last 20 years, however, has aroused concern that the present territorial operation of the Act may be too restricted.

Other Australian legislation and international conventions deal particularly with the operation of laws in **Australia's** territorial sea and in airspace. Notwithstanding that there may be some uncertainty in those provisions, inconsistency of the Patents Act with other legislation is undesirable. The Committee believes that a patent should have effect wherever there is technological or industrial activity in a place governed by other Australian law.

[32] WE RECOMMEND that patents should have territorial operation consistent with other Australian legislation concerning sovereignty and with relevant international agreements.

14.2 Contributory infringement

A patentee may encounter serious difficulty in enforcing his patent where it is prone to infringement by an eventual consumer who is supplied by an **unauthorised** person with the means to infringe.

For example, a process patent for using a selective herbicide **which** is a known chemical would be infringed by a farmer who bought a container and followed **instructions** for use which, when followed, unknown to the farmer, resulted in infringement of the patent. Even if the patentee were prepared to bear the

high cost of detecting **infringement** by the farmer and then to bring infringement proceedings, the result would almost certainly be unsatisfactory. The farmer would ordinarily be unaware of the patent and an award of damages would therefore be most unlikely. The farmer would be left with a stock of herbicide he was forbidden to use, and the patentee would find himself with no damages and a dissatisfied potential customer. To complicate the matter, there may be hundreds or thousands of such ultimate consumers.

It is unreasonable and wasteful of resources for a **patentee** to have to sue all of the direct infringers with so unsatisfactory a result in each case, when the supplier is, in a real sense, far more responsible for the commission of the infringing acts.

We believe that it would be more effective, realistic and just for the patentee to **be** able to take action against the supplier or middleman who facilitates the commission of the infringing act by the ultimate **consumer**.⁽³¹⁾ The most common example of indirect, secondary or contributory infringement is where goods, materials or parts are supplied to a consumer with the intention that they be used, consumed or assembled in a way which constitutes **an** infringement of a patent. The intention might be evident, for example, from the provision of brochures containing instructions on how to make a product **or** use a process which would infringe a patent, or by advertisements soliciting the commission of **an** act which would infringe.

In some countries there can **be** no indirect infringement unless a direct infringement has in fact taken place. This imposes unnecessary restrictions on the patentee. A distinction may be drawn between those cases where a supplier knows that goods sold will **be used** to infringe or takes positive action to induce another to infringe, and those where he makes goods available merely knowing that they may possibly be used for an infringing purpose. It would be **an unwarranted** interference with commercial activities if a patentee were to be able to prevent another person from selling a staple commodity with a wide variety of possible uses simply on the grounds that it might be used for **an** infringing purpose. This is quite **distinct** from the case where there is no possible use except as part of an infringing product or in an infringing process. Thus the importer of a kit of parts which is **signed** to **be** assembled into an infringing article should **be** liable as **an** indirect infringer even though it cannot be **shown** that an infringing product has in fact been assembled in Australia.

We believe that no action should be **allowed** against the supplier of a staple product unless it can **be** shown that the supply was accompanied by a positive inducement to perform acts which would infringe a patent, and irrespective of whether the product **was** in fact subsequently used in a direct infringement. **Where** the goods supplied have no reasonably conceivable use other than **an** infringing use, however, the patentee should **be** able to stop the supply at its source by suing the supplier for infringement.

There will be other problem areas under a law providing for indirect infringement; for example, where there are "tie-in" provisions in licensing agreements, and dealing with a product in the course of repair. These **cases** are discussed by Duffy and warrant further consideration, but they do not affect the general thrust of our recommendation.

[33] **WE RECOMMEND** that in general the supply of **goods** whose **only** use would infringe a patent, or which are accompanied by a positive inducement for the ultimate consumer to perform actions which would innocently or knowingly infringe a patent, should itself **be** an infringement of the **patent**.

14.3 Litigation insurance

The potential cost of litigation could be a material impediment to the use of patents as a basis for innovation and development of export markets by Australian industry, particularly small to **medium-sized** businesses seeking to use patents as a means of commencing new activities. The expense of a hard-fought infringement action can be so great (often in excess of \$100,000, but varying depending on the country concerned) that there may be a real diminution of the value of patents as an incentive to innovation.

High litigation costs are a fact of life in most commercial disputes. There is no justification in our opinion for weighting the balance any more heavily in favour of either the patentee or an alleged infringer. Other measures we propose, in particular relating to concentration of jurisdiction in the Federal Court and to the introduction of a **re-examination** procedure, are designed to reduce unnecessary costs of legal disputes.

There is nevertheless room for exploring further measures to mitigate the costs of infringement proceedings. If the importance of capacity to pay legal costs can be reduced, there may be a greater chance for smaller local innovators to assert their **rights** against larger **established** firms and achieve a more satisfactory result by compromise.

Various possibilities have been mooted for providing financial support to small innovators, including government-administered **funds**, legal aid, and insurance schemes. We are aware of at least one case in which legal aid has been given to an individual inventor and would not wish to see this avenue cut off. Without wishing to preempt these other possibilities, we can see some likelihood for success in an insurance scheme.

The availability of a voluntary insurance scheme would be consistent with the notion that it is up to patentees to seek and take advantage of their patents. Schemes have existed in Europe for a few years, although we have seen no evidence as to how satisfactory they have been in practice. Premiums in Europe appear, according to the information available to us, to be relatively modest. The existence of schemes elsewhere suggests that the idea is worth pursuing here. We understand that access to coverage is already available to a limited extent in Australia.

[34] WE **RECOMMEND** that the Government encourage insurance companies to offer appropriate schemes enabling Australian enterprises to obtain insurance coverage against patent litigation expenses in Australia and in other countries.

15 JURISDICTION OF COURTS AND TRIBUNALS

Jurisdiction to hear and determine matters arising under the Patents Act is primarily vested in the Supreme Courts of the States and Territories and in the Administrative Appeals Tribunal. The Supreme Courts have an extensive original jurisdiction and as well hear appeals from decisions of the Commissioner of Patents, while the Tribunal reviews certain decisions of the Commissioner of an administrative character. There is also a general **power** of review in the Federal Court of Australia under the Administrative Decisions (Judicial Review) Act. Appeals under all three jurisdictions go to a Full Court of the Federal Court and may then go to the High Court of Australia. (Although under the Constitution there is some original jurisdiction in the High Court itself, that is not often likely to be exercised).

The matters which can be heard by Supreme Courts generally involve matters of substantive patent law such as grant, revocation, infringement, working, and extension of term of patents. The type of issues which arise include the construction of specifications, novelty and obviousness of inventions, whether the reasonable requirements of the public are being met, and adequacy of remuneration to the patentee.

Patent matters heard by the Administrative Appeals Tribunal are basically connected with administrative and procedural matters. They include restoration of lapsed applications or ceased patents, extensions of time, disputes between co-owners of a patent, and registration of patent attorneys, though matters of substantive patent law can arise in the Tribunal as collateral issues. Both the Supreme Courts and the Tribunal, when reviewing Patent Office decisions, re-hear the cases and substitute their own decision for the Commissioner's.

The Federal Court under the AD(JR) Act exercises a supervisory jurisdiction. The question of jurisdiction under the Patents Act is extensively discussed in the report by Campbell commissioned for the Committee.

A number of serious problems arise because of the concurrent jurisdiction of the Supreme Courts. First, the plaintiff and defendant in a case may have different ideas of which State is the most convenient for the hearing. The location, for example, of infringing acts and of sources of evidence may count in this, but so too may the convenience of the parties' legal advisers and their familiarity with the rules and procedures in their home Supreme Court. Second, the territorially limited jurisdiction of Supreme Courts may cause delays and additional costs in attempting to serve documents on a reluctant defendant. Third, there is a risk of inconsistency and duplication. Two Supreme Courts may come to different conclusions on the same point of law and give quite different decisions, each in complete ignorance of the other's decision. Different aspects of the same case may even be dealt with simultaneously in different courts. Fourth, there is an inevitable difference in expertise and attitudes among Supreme Court judges on patent matters, given the specialised nature of the evidence and case law involved.

These problems are compounded by the existence of the other two routes for review of Patent Office decisions to the Administrative Appeals Tribunal and to the Federal Court under the AD(JR) Act. Because of the generality of AD(JR) Act review, and of the need for collateral matters to be decided by the Tribunal, it has happened that the same issue has been taken simultaneously to all of the three forums. The courts and tribunals themselves are able to make arrangements to avoid some of these difficulties, but time spent in arguing such matters is costly and unproductive.

We believe that it is important that disputes over patents be resolved with as much convenience, consistency, expertise and expedition as can be achieved. "Forum shopping", while it may be important for the parties in a particular case, does not serve the interests of the public in general and it should be eliminated as far as possible. We can see no advantage in retaining jurisdiction in the Supreme Courts if there is a suitable single court which sits regularly in the main cities.

We believe that most of these disadvantages would be removed or minimised if jurisdiction over patent matters were to be transferred from the Supreme Courts to the Federal Court. The Federal Court is likely to be better equipped to develop a uniform and coherent body of case law in its interpretation and application of patent law.

A further and extremely relevant **consideration** is that the Federal Court is vested with exclusive jurisdiction **in** actions under the Trade Practices Act. **As** we noted earlier, the nature of the relationship between competition law and patent law is such that it is **both** logical and desirable that the court having jurisdiction over competition law matters should also be the one that has all relevant jurisdictions under the Patents Act.

A number of matters of an administrative or procedural nature can be **dealt** with by the **Administrative** Appeals Tribunal. This is consistent with the approach taken in other federal laws and we see no reason to disturb it.

Although it is beyond the scope of this review to consider matters relating to trade marks, copyright, designs, and allied rights associated with intellectual property, the Committee believes that patent law must be seen in **its** proper **context** as part of intellectual property law. Prima facie, the arguments which support the vesting of exclusive jurisdiction in the Federal Court in relation to patent matters largely apply to other areas of intellectual property.

[35] WE RECOMMEND -

- i** that the jurisdiction in matters of patent law currently vested in the Supreme Courts be transferred exclusively to the Federal Court of Australia; and
- ii** that consideration be given to vesting in the Federal Court exclusive jurisdiction in all substantive matters arising under intellectual property law (including trade marks, designs and copyright).

16 THE PATENT OFFICE

The Patent, Trade Marks and Designs Office employs approximately 500 people, some 60% of whom are concerned with patent matters. The Office receives some **\$17m** in fees per **annum** in connection with all its functions. About 17,000 patent applications are lodged annually.

Sub-offices are maintained in each State capital, at which can be lodged applications for the grant of a **patent** and other documentation concerned with an **application**. Limited patent searching facilities are available at these Sub-offices. Approximately 15,000 general telephone and counter enquiries are serviced by the Sub-offices each year.

Since 1976 the Patent Office has been active in the provision of patent information services but the resources committed to this function are quite small. The Committee is aware of the fact that the Minister has recently given approval for the establishment of a new Technology Information Branch within the Office which has the objective of assisting industrial growth and efficiency of Australian industry by the effective transfer and diffusion to the private and **public** sectors of technological information contained in patent literature. We commend this initiative.

The cost of operating the Office, from whatever source the cost is recovered, is a direct cost of the patent system. This cost, as with all others should be **minimised** consistent with the attainment of the objectives of the patent system. To achieve this result the Office must operate in the most efficient manner.

More efficient operation, in our view, can be achieved through proper strategic planning and the development of efficient systems to support the administrative

functions which the Office is required to perform. This in turn involves **forward** planning over time frames **which** may exceed the lives of elected governments.

The Patent Office is **essentially** providing a commercial service and is required to recover its operating costs. The Office provides some services which it is neither appropriate nor practicable to regard as "user pays" services. These include particularly those providing information services to the public, including the maintenance of public libraries of patents, trade marks and designs in **Sub-offices** in each State, and other functions of the Technology Information Branch. These services are, however, essential to the proper functioning of the patent system. The costs of these services should not **be** recovered from patent applicants, patentee., or other users of the system, but should **be** borne by the community. One of the objectives of this Report is to encourage new entrants into the system. To impose greater **costs** by the recovery of all indirect costs **as well as** direct costs of administering the Office would act as a deterrent to we of the system.

[36] WE RECOMMEND that the Patent Office not **be** required to recover its operating costs for those of its services which are in the nature of a service to the public rather than a service to direct **users** of the system.

The Office ought to be able to respond to **user** demands for improvements in its service which could be paid for **by** appropriate fees collected over a period of time greater than a financial year. Successful forward planning requires a fair degree of control over resources to **be** available to the planners. In these circumstances, the budget cycle and process which operates in **government** departments is too restrictive and uncertain to **allow** for most effective management of the Office. Further, the Office **does** not have adequate control over resources, the requisite power lying with the permanent head of the department to which the Office, for the time being, is attached.

We believe that the Patent Office should have a greater amount of flexibility and responsibility for its own organisation. At present it functions, to a large degree, as a conventional division of the Department of Science and Technology. Thus the normal ministerial control, and the requirements of the Department of Finance, the Treasury and the Public **Service** Board are executed through the medium of the **Department** of Science and Technology. The effect of this is that while the Commissioner has full technical direction and control of the work to be carried out and the procedures to **be adopted** within the Office, he has little control over the numbers of staff and other resources **that** are to be deployed to meet the workload or over investment programmes in office technology such **as computerised** information handling.

We are aware that the foregoing problems exist in relation to patent offices elsewhere in the world. The Nicholson Report recommended that the UK Patent **Office** should become a separate statutory **body.**(32) The US and Japanese Offices have both in recent times achieved operational independence. In its submission to this Committee, the Australian Patent Office has argued for granting to the Commissioner of Patents the powers of a Permanent Head. On balance, we are inclined toward this **view.** The establishment of a suitable financial appropriation arrangement for the operation of the Office should **be** the subject of discussions between the Office and the appropriate central government planning authorities.

[37] WE RECOMMEND that the Commissioner of Patents **be** granted, under the Patents Act, the powers of a Permanent Head.

17 PATENT ATTORNEYS

17.1 Introduction

Patent attorneys are a body of professionals **specialising** in patent law and practice, and particularly in the searching, preparation, and prosecution of patent applications in Australia and abroad.

While patent applicants may prosecute their own applications before the Office, patent attorneys have the exclusive right under the Patents Act to prepare specifications for a fee, so they have an effective professional monopoly to handle patent applications. They advise clients in relation to patent validity and 'infringement' and also **deal** with trade marks, industrial designs, and licensing.

The care and skill with which patent applications are prepared materially influence the scope and value of the protection obtained **under** a patent. The **drafting** of patent specifications and claims requires special skill and knowledge of the applicable law and practice, as well as a capacity to understand the technology involved. No amount of legal skill will avail if the subject matter is not understood. If Australian inventors are to obtain adequate protection for their inventions here and abroad, the assistance of people possessing these attributes must be available in Australia.

Submissions made to the Committee, including those by the Institute of Patent Attorneys of Australia, and the report commissioned from **Macdonald** on individual inventors, have been critical of:

- training and qualifications of patent attorneys;
- fees charged **by** patent attorneys;
- discipline and regulation of the profession; and
- the failure of the profession (and of the Patent Office) to provide assistance to applicants beyond the mere prosecution and processing of patent applications.

To these issues we would add for consideration:

- the extent of the monopoly of practice given to patent attorneys.

17.2 **Qualifications** and **examinations**

An applicant for admission to practise as a patent attorney must possess a basic tertiary qualification in science or engineering and must have satisfied the Board of Examiners of Patent Attorneys in the course of study prescribed in regulations made under the Patents Act. The Patent Attorneys Regulations presently require applicants to present themselves for examination in 7 subjects although legal 'practitioners' and UK chartered patent agents can obtain exemptions from certain of the qualifying examinations. Most applicants are required to work with a registered patent attorney for 12 months as part of the qualifying requirements, though in the case of a Patent Office examiner this period is reduced to 6 months.

A major deficiency in the present system is that although the curriculum posits a **high** qualifying standard, there is no **institutionalised** course of study and teaching is "in-service". Not surprisingly there is a **high** failure rate and many candidates have to make more than one attempt to **pass**. The examinations are conducted by the Board of Examiners of Patent Attorneys which is comprised of certain members elected **by** the patent attorney profession and others nominated by the Minister.

We believe that the patent attorney profession has an extremely important role to play in ensuring that the most effective possible use is made of the patent system. If the profession is to be able to perform that role it is clear that its members must be adequately trained. Qualifying standards should not be ~~ma&~~ unreasonably high, however, because of the risk that they would unduly **limit** entrance into the profession.

We believe that a tertiary technical Diploma is **no** longer adequate qualification for a person seeking to practise as a patent attorney, notwithstanding that if our recommendation is accepted it will become commensurately more difficult for a person to qualify for admission to practise.

[38] WE **RECOMMEND** that the minimum technical qualification for a patent attorney be a **Bachelor's** degree, post-graduate Diploma, or other qualification granting admission at the corporate level to an appropriate professional institution.

We also recommend that the subjects which form the intermediate **part** of the patent attorneys' examinations (**i.e.** the basic subjects of patent, trade marks and designs law) be institutionalised. Ideally, a course of study should be established at a recognised tertiary institution, but if that is not possible we suggest that the Institute of Patent Attorneys establish a formal course of instruction in these subjects.

Applicants for admission to practise as patent attorneys are required to complete a course of study in patent, trade mark and designs law and practice in Australia as well **as** that in a number of foreign countries. Many candidates for the examinations experience **difficulty** in dealing with the legal materials to which they are exposed and the Committee believes that candidates might be assisted if they were required to study an additional subject designed to provide them with a general legal skills background.

We also **consider** that the present exemption from the intermediate **examination** subjects allowed to legal practitioners be removed except in those cases where the candidate can show that equivalent subjects have been taken in the course of obtaining legal qualifications. **Also, in view** of the increasing divergence between Australian and UK laws, the present limited exemptions for UK chartered patent attorneys should be discontinued.

We believe that it **would** be desirable for all candidates to be required to complete at least 12 months' training with a patent attorney, either in private practice or in industry. The present **provision** for a reduction of this period to 6 months for Patent Office examiners should be removed. On the other hand, all candidates should be required to have **some** knowledge of the **working** and operation of the Patent Office and the Institute and the Patent Office should **co-operate** to provide an exchange programme whereby trainee patent attorneys and patent examiners obtain experience in the Patent Office and in the profession respectively.

One area where it is becoming increasingly important for the level of training to be increased is in the area of foreign patent law and practice, particularly that of **countries** most relevant to Australian inventors **seeking** patents abroad. The Committee believes that all necessary steps should **be** taken to ensure that candidates receive adequate training in this aspect of practice and recommends that measures should be taken by the Institute and the Patent Office to investigate appropriate methods of instructing candidates. Consideration should likewise be given to the introduction of continuing education requirements to ensure that the profession is kept informed of changes **as** they take place.

- [39] WE **RECOMMEND** that the Institute of Patent Attorneys of Australia and the Patent Office, in conjunction with the Board of Examiners of Patent Attorneys, investigate -
- i the **feasibility** of the instruction and examination of the 3 subjects which form the intermediate part of the patent attorneys¹ examination being conducted at a **recognised** tertiary institution;
 - ii the inclusion of an additional subject designed to provide candidates with general legal skills;
 - iii the removal of the present exemptions -
 - from the intermediate level **allowed** to legal practitioners, except where equivalent subjects have been taken;
 - from 6 months of the 12 months in-service training allowed to examiners from the Patent Office; and
 - from 2 subjects of the final examinations allowed to UK chartered patent agents; and
 - iv the implementation of an exchange programme between trainee patent attorneys and examiners, and a continuing education programme for those who have qualified.

We also believe that the Board should be more representative of the various groups who have an interest in its functions. There is a case for diversifying the membership of the Board to include at least one non-professional representative.

17.3 Patent attorneys fees

The fees charged by **patent** attorneys for their services, like the fees charged by the Patent Office, are part of the costs of the operation of the **patent** system. **Maximisation** of the benefits to be derived from the operation of the system require that these costs be kept as low **as** practicable. On the other hand, reasonable fees must be charged if adequate services are to be provided. We have examined the Institute of Patent Attorneys¹ recommended Scale of Fees. We are unable to say that the fees set out in that Scale are, on the whole, unreasonable, having regard to the requisite care and responsibility involved. We are in no position to know whether in particular cases unreasonable fees may have been charged. It is not particularly significant that individuals may sometimes have **complained** that they have been charged too much.

We do consider it undesirable that information is not publicly available as to the fees charged by patent attorneys for their services. It has been suggested to us that the Institute's Recommended Scale of Charges is so lengthy and **complex** as to be unintelligible to persons other than those thoroughly familiar with **its** operation. While we have some sympathy for that view, we do not accept **it** as sufficient reason for failure to publish the Scale and we recommend it be made available on request to any interested person.

- [40] WE **RECOMMEND** that the Institute of Patent Attorneys be required to make its Recommended Scale of Charges available on request to any interested person.

We would add a suggestion that those patent attorneys who do not already do so should, in their own interests as well as those of their clients, endeavour to provide in advance as much information as possible about the costs likely to be involved in the prosecution of a patent application, particularly a patent application filed abroad, or any other professional services which they may be engaged to undertake.

17.4 Regulation of the profession and discipline

Although no submissions have been made to us on the point we are aware that both the Institute of Patent Attorneys and the Patent Office hold the view that the present provisions for the regulation of the profession and the **discipline** of members are inadequate.

The profession is not self-regulating. The Institute of Patent Attorneys, being the professional association to which most but not all patent attorneys belong, has limited disciplinary powers over its members. The major **responsibility** for the regulation of the profession lies with the Commissioner.

The Committee has considered the question of whether wider powers of regulation should be vested in the Institute so that it could operate along similar lines to the various State **bodies** which administer the legal profession. We have concluded that such a change would not be practical at present because the profession is numerically so small.

We understand that proposals have been made, and are presently under consideration, under which the powers of regulation vested in the Commissioner would **be** extended, and an independent disciplinary tribunal would be established to deal with complaints referred to it. We consider that these initiatives should be pursued.

[41] WE RECOMMEND that current proposals to extend the disciplinary powers of the Commissioner in relation to patent attorneys and to establish an independent disciplinary tribunal be pursued.

17.5 Professional monopoly and scope of professional practice

We have already commented on the important service role which patent attorneys play in preparing and filing patent applications in Australia and abroad. We believe that it is appropriate for the **drafting** and filing of patent specifications for reward to be the exclusive domain of a trained and regulated professional body.

The work is highly technical and it is an integral part of the whole process of effective innovation. We have already made proposals for the improvement of the training of patent attorneys and we are of the view that only people in possession of the requisite skills and subject to professional regulation should **be** permitted to practise as patent attorneys. The Committee therefore accepts that a limited monopoly of practice by patent attorneys should **be** retained. We note, however, that practice in trade **marks** does not require technical qualifications. This may warrant further examination in the context of the Trade Marks Act.

The Committee has also considered proposals that patent attorneys should **be** given the right to practise in areas of legal practice which are related to patent practice. We do not believe that there is any justification for extending the patent attorneys' right to practise unless there were to be corresponding requirements of training, qualification and regulation of practice in those areas. In particular, we do not believe that it should be part of a patent attorney's role to provide legal advice beyond the narrow scope of the work peculiarly within the province of patent attorney practice, without full qualification **as** a legal practitioner.

[42] WE RECOMMEND that no change be made to the present scope of patent attorney practice.

PART F

THE PATENT SYSTEM ABROAD AND AT HOME

18 INTERNATIONAL ROLES AND RELATIONS

The effectiveness of the patent system from a national perspective inherently depends upon the operation of the international patent system in which Australia participates and specifically the Paris Convention for the Protection of Industrial Property.

Apart from economic aspects discussed earlier in the Report, a further aspect of **Australia's** participation in the international patent system is that benefits are derived from involvement in technical meetings, that is, those meetings which are part of the international programme for achieving international conformity in classification of patent documents, procedures for uniformity of patent applications, international patent searches, exchange of views on computerisation of patent data bases, and so on. In fact, most of the international meetings attended by officers of the Patent Office are of a technical nature. Australia has in recent years had a material influence at these meetings.

Within the political arena, there is presently current only the proposed revision of the Convention to provide preferential treatment to developing countries. These issues have been in debate for the past 10 years and no resolution is yet in sight. In these negotiations Australia has tended to adopt an independent line within the Group B countries. This independence reflects Australia's **size**, its geographical location and its perceived future trading relationship.

[43] WE RECOMMEND that Australia continue to participate in the various treaties administered by WIPO, having regard to the special needs of the Australian economy.

The Australian Patent Office is the largest English speaking **patent** office within the **Asia/West** Pacific region. As the English language is the major technology language and the second language in the region, the Australian Office is well placed to assist in co-operation development of industrial property systems within the region. We see this co-operation development as a useful, albeit small, part of continuing to improve Australia's political and economic relationships with the countries in the region. It is the region that is expected to **be** the most dynamic, in terms of industrial and economic growth, during the rest of the century and beyond. The South East **Asian/South** West Pacific countries alone carry a population comparable with that of North America, the EEC and South America combined.

We note that the Australian Office has provided experts to WIPO for co-operation development activities in developing countries in South America and Africa. We do not propose that these activities should discontinue, but preference in allocation of expert resources should **be** given to countries in the **Asia/West** Pacific region.

We believe as a general proposition that it is in Australia's best interests to encourage the establishment, harmonisation and **modernisation** of industrial property legislation in developing countries in the region. Some of the existing industrial property administrations in such countries require modernisation,

particularly from the point of **view** of streamlining procedures and operations, strengthening of staff resources through training, and increasing understanding of the functions and role of industrial property in technological, **industrial** and economic development. Further it will be useful to **consider** whether common administrative or other links could be established that would lead to more efficient sharing of scarce resources, including documentation and technical personnel, and of systems and services for the acquisition and dissemination of technological information. The Australian Patent Office is, **through** aid and training programmes financed through the **Australian** Development Assistance Bureau (ADAB), already encouraging and assisting the development of industrial property systems which are likely to **be** introduced **by** developing countries in the region during this and the next decade.

[44] **WE RECOMMEND -**

- i** that the **Australian** Patent Office continue to develop regional cooperation programmes, particularly in the **Asia/West Pacific** region, in the following three main categories:
 - advising and training of technical staff and administrators in industrial property offices;
 - providing advice and training to industrial **property** offices to better access and **use** the technology information contained in patent documents; and
 - development and use of common services with the long range objective of the establishment of regional arrangements which would serve all the participating countries concerned; and
- ii** that the Ministers for Science and Technology and Foreign Affairs consult with a view to ensuring suitable Government funding for these activities on the **part** of the Patent Office.

19 MONITORING OPERATION AND EFFECTS

It is important for the proper functioning of the patent system that basic information concerning proprietorship, and the existence of licences, mortgages and other interests in patents, should be as readily available as possible. The Patents Act currently requires the licensing of a patent to **be** recorded in the Register, but the sanctions it provides for not doing so are largely ineffectual. Copies of **deeds** and **documents** must also be lodged. Patent licences in practice are lodged and recorded only where it becomes in the **patentee's** or **licensee's** interests, usually where infringement proceedings are contemplated. Accordingly, the Register at present provides little information on the licensing of patents in Australia. The reason is not hard to locate. The Act provides that all such documents and information lodged and recorded on the Register be open to **public** inspection. Compliance with the requirements would therefore result in **many** cases in public disclosure of commercially sensitive details.

We can see no justification for requiring full public disclosure of all licences, mortgages and other interests in patents. It would **be** enough that appropriate minimum particulars **be publicly** recorded so as to provide the information which members of the **public** may reasonably need concerning the existence of relevant rights and interests. Published **particulars** could **probably** be limited to the names of the persons concerned, the nature of the **interest**, together with sufficient particulars to identify the instruments by **which** the **interest** is created or transferred, and in the case of a licence, the term for which it is granted and whether or not it is exclusive.

On the other hand, as by now will be apparent, the Committee has been handicapped throughout the course of this review **by** lack of adequate data, particularly empirical evidence as to the operation and effects of the patent

system in Australia. Such information would be useful for general economic policy assessment purposes, for example, in monitoring transfer of technology to Australia, as well as in matters more directly related to the patents legislation. Better statistical information on the use of patents in Australia, including their licensing, would add greatly to the effectiveness of future **monitoring** and assessment. The requisite information would, however, be commercially sensitive, and any stipulation that it **be** provided must therefore ensure that it **will** be received in confidence and under privilege. It could thus neither **be disclosed**, nor compelled to **be** produced in legal proceedings, by the authority to which it is supplied. The operation of the Freedom of Information Act may have to be excluded accordingly. We suggest that the authority to which this information should be supplied should be the Patent Office. An appropriate sanction for non-compliance would be a restriction of the right to recover damages for infringement.

[45] WE RECOMMEND -

- i** that full particulars of all **interests** affecting the proprietorship of a patent, including any licence, be required to **be** lodged with the Patent Office, for use for statistical and general policy assessment purposes;
- ii** that only certain appropriate minimum particulars be entered on the Register and be open to public inspection;
- iii** that all of the information provided and not entered on the Register **be** treated **as** received and held in confidence and subject to privilege, and to the extent necessary for this purpose, that the application of the Freedom of Information Act be excluded; and
- iv** that if particulars are not lodged **as** required within 3 months after the date of the instrument, then damages for infringement will not **be recoverable** for infringing acts occurring between the date of the instrument and the date on which the requisite particulars are lodged.

We also believe that the Patent Office should develop systems and procedures for collecting other data from applicants and patentees to provide information on which to base future policy decisions. Of particular interest is information concerning use of a patent after it has been granted. This might be done by requiring **information** to be provided at certain stages in a patent's life as a **pre-condition** to renewal, for example, upon grant and each 5 years thereafter.

- [46] WE RECOMMEND** that the Patent Office introduce procedures to collect more data from applicants and patentees, particularly concerning the use of patents after grant, in a form which facilitates analysis for statistical and general policy assessment purposes, the information so collected being treated as received and held in confidence and subject to privilege.

DISSENTING STATEMENT

BY PROFESSOR D.M. LAMBERTON

This Report **does** not live up to its **claim** to have adopted an economic perspective and to have applied economic criteria. It has not consistently applied economic criteria; it has **not** made full use of available empirical evidence; and the concept of social cost, so frequently mentioned, has never really been fully grasped. The underlying idea of the process of innovation is little more than faith that more patent protection will ensure more innovation. The sensible objective is rightly declared to **be "to modify the Australian patent laws, adjusting the length, strength and breadth of patent rights"** to maximize the net benefit. It is unfortunate that the Report soon strays from this path.

No amount of talk about individual patent successes nor about a future in which the Australian economy has magically become progressive, innovation-oriented, and competitive on the world scene, can **hide** the facts that Australia exports little in the way of manufactured **goods** and has few inventions for sale. Most patents are granted to overseas firms. To make the most of this situation, Australia needs to reduce social costs to the extent possible without inhibiting innovation and without provoking international retaliation. **As** a small nation, there is scope for such action. The constraints of the Convention are largely myth.

A policy exercise such as this Report should look to the dimensions that can serve **as** the basis of effective action. Abdication in favour of competition law **does** not hold good prospects in a small domestic market with highly concentrated industries often dominated by foreign investment. This approach is even less promising because patents operate **as** effective **non-tariff** barriers to import competition. In these circumstances the **thrust** of the Report should have been designed to foster and capitalize on the capability to respond dynamically to change, to imitate, and to innovate competitively and not to **preserve** the profits of protected stability.

To acknowledge the circumstances of the Australian economy and to seek such a balancing of social cost **and** dynamic benefits is to reject much of this Report. In particular, it points to:

- (a) reduction of standard patent term to 10 years;
- (b) some freeing of import competition from the restrictions **patents** permit (If permitting import competition would **be** tantamount to abandonment of the patent system, the case for **exposing** the protection afforded to public scrutiny, as is done with tariffs, is a strong one.);
- (c) implementation of a comprehensive system of employee rights in inventions;
- (d) making sure that provisions such as compulsory licensing and reexamination can function effectively;
- (e) ensuring that **patent** legislation facilitates the monitoring and **control** of the conditions **under** which technology is acquired from overseas;

- (f) avoiding the restrictive **consequences** and **additional social** costs **that** can arise if the scope of the patent system is extended **unnecessarily** in the development of the information economy;
- (g) weakening the professional patent attorney monopoly of costly advice;
- (h) significantly improving the educational requirements for those working within the patent system; and
- (i) clarifying the extent to which Patent Office operations are to be subsidized.

Some important matters have been addressed inadequately, eg.:

- (i) the nature and extent of restrictive practices;
- (ii) co-ordination with other industrial and economic policy measures;
- (iii) **co-ordination** of availability of patent information with other sources of technological and **business** information; and
- (iv) the administrative efficiency of the Patent Office.

The Report is not an imaginative one. It is constrained by the very "**haze** of **assumptions** about rights and rewards for inventors, special pleading by those directly involved, and a plethora of legal **procedures** and criteria in the Patents **Act**" that it deplures. **Many** of its recommendations are for no change; and when change is implemented it is all **too** often **merely** procedural **or** has little prospect of being effective. A good **opportunity** to **adjust** an **ancient** institution to the current **needs** of the Australian economy **has** been missed.

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- (2) C.f. M.L. **Kamien** and N.L. **Schwartz**, "**Market** Structure and **Innovation**", Cambridge University Press, Cambridge, 1982, pages 27-28.
- (3) B. Johns in "**Panel** Discussion - IPAC Review of the Australian Patent **System**", LES Australia Annual Conference, Canberra, **20** March 1981.
- (4) R.B. **Nicholson**, "**Intellectual** Property Rights and Innovation", Report by the Chief Scientific Adviser in the UK Cabinet Office, (the "**Nicholson Report**"), HMSO, London, 1983, pages **5-6**.
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- (6) P.J. **Lloyd**, "**Protection Policy**", in F.H. **Gruen** (ed), "**Surveys** of **Australian Economics**", George Allen & Unwin, Sydney, 1978, page 241 at 289-290.
- (7) F. **Machlup**, "**An Economic** Review of the Patent **System**", Study **No.15** of the Subcommittee on Patents, **Trademarks** and Copyrights of the US Senate Committee on the Judiciary, US Government Printing Office, Washington, 1958, **page** 80.
- (8) E.T. **Penrose**, "The Economics of the International Patent **System**", Johns **Hopkins** Press, Baltimore, 1951, pages 116-117.
- (9) **Op cit** Appendix B of this Report, at **page** 213.
- (10) L.B. **Krause**, "**Australia's** International **Trade**", **Brookings** Survey of the Australian Economy Conference, Centre for Economic Policy Research (**ANU**) and **Brookings** Institution (Washington), Canberra, 9-11 January 1984.
- (11) P.G. **McGonigal**, "**Patents** and Competition **Policy** : Economic **Implications**", in "**The Economic** Implications of Patents in **Australia**", Patent Office, Canberra, 1981, page 141 at 142.
- (12) Continental TV Inc v GTE Sylvania Inc, (1976) 433 US 36 at 50, note 16.
- (13) W.S. **Bowman, Jr**, "**Patent** and Antitrust Law : A Legal and Economic **Appraisal**", The University of Chicago Press, Chicago, 1973, page 1.
- (14) **Ibid**, at page ix.
- (15) See Appendix B of **Baxt**.
- (16) See **Baxt** at paragraphs **4.40** to 4.52.
- (17) **The** relevant US law and practice is discussed by **Baxt** at paragraphs 5.42 to 5.45.

- (18) Op cit (4), at pages 27 to 29.
- (19) C.A. Tisdell, "A Review of Economic Principles of the Patent System", in "The Economic Implications of Patents in Australia", Patent Office, Canberra, 1981, page 45 at 52, note 3.
- (20) Ibid, at page 52.
- (21) For a full discussion of the scope of the concept of "manner of manufacture", see Dufty at paragraphs 1.1.001 to 1.1.005.
- (22) See Dufty at Section 1.1.
- (23) Designs Law Review Committee, (the "Franki Committee"), "Report relating to Utility Models", 1973 - Parliamentary Paper No.121, Australian Government Printer, Canberra, 1974.
- (24) Industrial Property Advisory Committee, "Report on Proposed Petty Patents Legislation", Patent Office, Canberra, 1978.
- (25) F. Liebesny, J.W. Hewitt, P.S. Hunter and M. Hannah, "The Scientific and Technical Information Contained in Patent Specifications: The Extent and Time Factors of its Publication in Other Forms of Literature", The Information Scientist, December 1974, Vol 8, No 3, page 165; see also R.P. Vcerasnij, "Patent Information and its Problems", Unesco Bulletin for Libraries, 1969, Vd 23, No 5, page 234.
- (26) Op cit (1), at page 131.
- (27) Australian Patent Office, "Pilot Study of Users of Patent Information and their Needs", Patent Office, Canberra, 1980, page 92.
- (28) J. Stephenson, "The Use of Patent Information in Industry", in "World Patent Information", 1982, Vd 4, No 4, page 164.
- (29) Ibid, at page 171.
- (30) See Dufty at paragraphs 2.1.007 to 2.1.011.
- (31) The present law in this area is outlined by Dufty at section 33.
- (32) Op cit (4), at page 15.

APPENDIX A SUBMISSIONS

Submissions made by the following were made publicly available in the Patent Office and **Sub-offices** in the State capitals. Submissions were numbered as shown in parentheses.

- Agricultural and Veterinary Chemicals Association of Australia (1,55,85)
J.K.H. Allen (2)
Amalgamated Wireless (**Australasia**) (Limited) (47)
Association of the British Pharmaceutical Industry (3,58)
The Association of the Swedish **Pharmaceutical** Industry (4,75)
Australian Academy of Technological Sciences (5)
Australian Consolidated **Industries** Limited (6)
Australian Industrial Research Group (38)
Australian Industries Development Association (46)
Australian Manufacturers Patents, Industrial Designs, Copyright and **Trade**
Mark Association (7,53,78)

Australian Patent Office (49)
Australian Pharmaceutical Manufacturers Association (8,70,86)
Australian Science and Technology Council (45)
BP Australia Limited (9)
Bundesverband der Pharmazeutischen Industrie (35)
The Chartered **Institute** of Patent Agents (UK) (10,72)
Ciba-Geigy Australia Limited (11)
Ciba-Geigy Limited (12)
C.I.K. Australia Pty. Ltd. (42,90)
Commonwealth Scientific and Industrial Research **Organisation** (13)
Confederation of Australian Industry (14,71)
Consolidated Fertilizers Limited (57)
Control Data Australia Pty. Limited (61)
Dulux Australia Limited (16)
The Dutch Study Committee on Industrial Property (34)
Eacham Shire Council (51)
Esso Australia Ltd. (52)
European Federation of Pharmaceutical Industries **Associations** (17,73)
FH **Faulding** & Co. Limited (69)
Footscray Institute of Technology (31)
D.A. Freckleton (89)
ICI Australia Operations Pty. Ltd. (37,76)
Department of Industrial Development & Commerce (W.A.) (15)

The **Institute** of Patent Attorneys of Australia (39,74)
The **Institution** of Engineers, Australia (59)
The International Federation of Industrial Property Attorneys (18)
Inventors' Association of Australia Limited (19,82)
Japan Patent Association (44,64)
Allan Richard Jones (20,54,62)
Joe **Kenyon** (88)
Law Council of Australia, Business Law Section, Trade Practices
Committee (21,50)

Keith Leslie (22)
The Licensing Executives Society Australia and **New Zealand** (84)
Livestock & Grain Producers Association - **N.S.W.** (43)
Hayden Llewellyn (83)
Monsanto Australia Limited (36)
Monsanto **Company** (23,79)
Clifford E. Musto (24,63)
National **Farmers'** Federation (40,65)
Nufarm Chemicals **Pty.** Ltd. (87)
Pharmaceutical Manufacturers Association, **U.S.A.** (25)
Professional **Officers'** Association, Patent Office Group (26)
The Royal Australian Chemical Institute (27,67)
Queensland **Graingrowers** Association (81)
Scherico Ltd. (28)
Department of Science and Technology (Commonwealth) (56)
B.J. **Simpson** (29,77)
Alan **Skyring** (30)
Standard Telephones and Cables Pty. Limited (48,60)
Swiss Society of Chemical Industries (32,66)
University of Melbourne (33,68)
Dr Joe **Unsworth** (41)
C.H. **Warman** (80)

APPENDIX B COMMISSIONED STUDIES

The following reports were made under studies commissioned in support of this review.

Mr T.D. Mandeville, Professor D.M. Lamberton and Ms E.J. Bishop, (Department of Economics, University of Queensland), **"Economic Effects of the Australian Patent System"** and **"Supporting Papers for Economic Effects of the Australian Patent System"**, AGPS, Canberra, April 1982.

Mr R.T. Carstairs and Dr L.S. Welch, (School of Business Studies, Darling Downs Institute of Advanced Education), **"A Study of Outward Foreign Licensing by Australian Companies"**, Patent Office, 1981 (jointly supported with the Licensing Executives Society of Australia and New Zealand).

Dr S. Macdonald, (Department of Economics, University of Queensland), **"The Individual Inventor in Australia"**, University of Queensland, Brisbane, February 1982.

Ms A. Dufty, Professor R. Baxt and Professor E. Campbell, (Monash University Law School), **"Report to the Industrial Property Advisory Committee"** on specific topics in industrial property law and policy, Patent Office, Canberra, 1983.

Volume 1 by Dufty deals with **Patentable Subject Matter, Invalidity on the Grounds of Obviousness or Lack of Novelty, and Infringement and the Rights of Third Parties.**

Volume 2 by Baxt deals with the **Interface between Anti-Trust and Intellectual Property Legislation.**

Volume 3 by Campbell deals with **Jurisdiction in Patent Matters.**

APPENDIX C SEMINARS

The Economic Implications of Patents in Australia, Healesville, 7-8 November 1980. Papers **presented** at the seminar have been published, together with those presented at a symposium on "**Economic Aspects of the Australian Patent System**" held in the Economics Section of the 1981 ANZAAS Conference, Brisbane, in "**The Economic Implications of Patents in Australia**", Patent Office, Canberra, 1981.

The Patent Cooperation Treaty - Experiences and Perspectives, Sydney, 20 October 1981. This seminar **was** organised jointly with the **International Association for the Protection of Industrial Property (AIPPI)** (Australian Group).

Petty Patent Seminar, Melbourne, 27 November 1981. This **seminar was** organised jointly with the Victorian Chamber of Manufactures and the Australian Patent Office.

The Commercial Implications of the Australian Patent System, Canberra, 11-12 August 1982. This seminar **was organised** jointly with the Confederation of Australian Industry and the Australian Patent Office. The **proceedings** have been published by the Patent Office.