Qa 06418

Qa 06418

To: PRIME MINISTER

To: JOHN SPARROW

COPRS Report on Intellectual Property Rights and Innovation

Minuster:

A server of property Rights and Innovation

1. I attach a copy of the report on Intellectual Property Rights and Innovation which you commissioned from CPRS. In accordance with your instructions (Michael Scholar's minute of 11 April to me) it is still in draft form. Before finalising it, we would need to discuss it with Departments to check points of fact and also of emphasis.

- 2. The origin of this report was the letter you received from Sir Austin Bide last autumn which drew your attention to the general lack of awareness of the commercial importance of intellectual property in the UK and expressed specific concern at the line taken by the UK in the re-negotiation of the Paris Convention (the international agreement which links patent laws in individual countries).
- 3. At the same time, the CPRS became aware of a number of criticisms of the system for protecting and exploiting intellectual property in the UK. There were allegations of inefficiency at the Patent Office, abuse of professional monopoly by Patent Agents, inability of the system to cope with new technologies and problems for small businesses.
- 4. Our findings can be summarised as follows. The framework of the system for protection of intellectual property is generally in good shape and can be adapted to cover new developments. But substantial improvements in the administration and operation of the system in the UK are necessary. General awareness of the importance of intellectual property as a tradeable commodity is indeed at a low level. Liaison between Whitehall Departments and between Whitehall and industry needs to be improved, especially in relation to international negotiations.

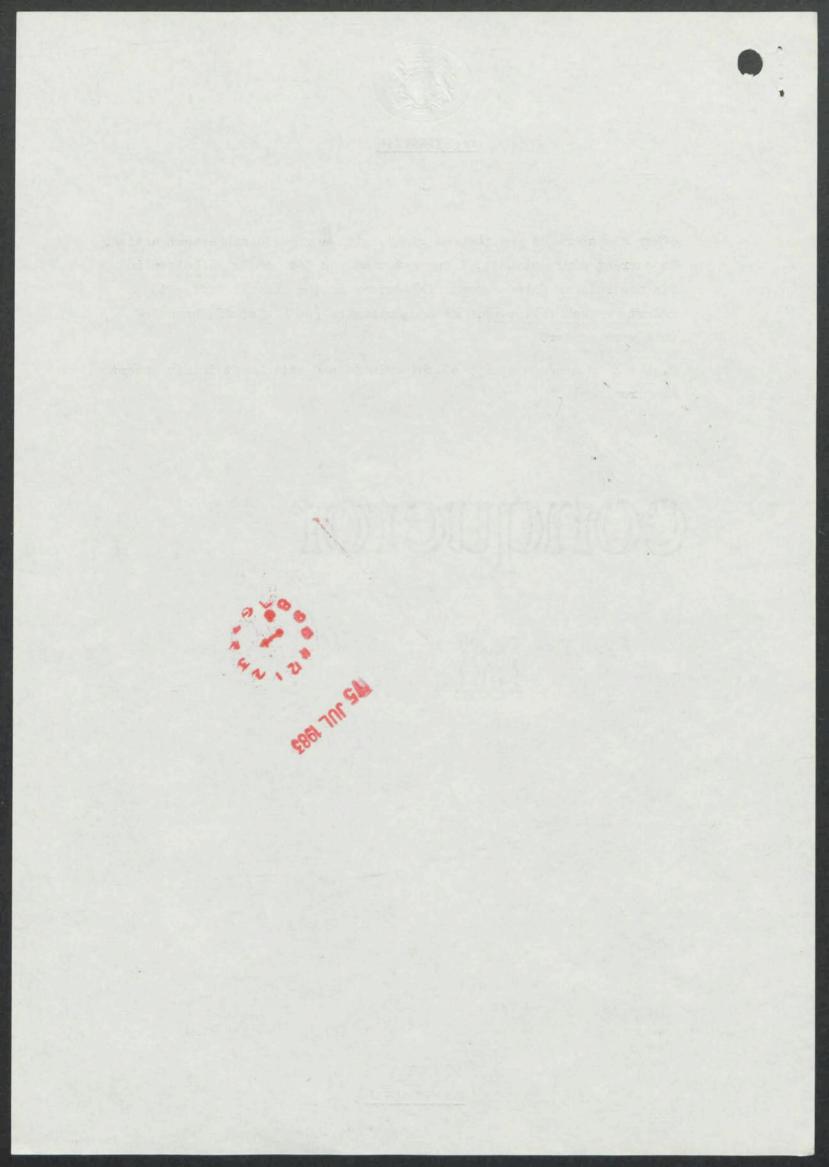
- 5. Our main recommendations to deal with these points are:
 - (a) The Patent Office should be brought up to date, freed of Civil Service restraints and given broader terms of reference, including promoting the use of intellectual property rights as a means of exploiting innovation. It should become a statutory body, self-supporting from fees but still subject to directives from the Secretary of State for Trade and Industry.
 - (b) With a particular eye on the needs of small businesses, a scheme for "petty" patents should be introduced and the system for challenging patent abuse made easier and less expensive. The rights of employee inventors should be improved.
 - (c) The system of <u>registered</u> trade marks should be expanded to cover service marks so as to encourage innovation in service industries. (We support the efforts which Lord Cockfield was making while at Department of Trade).
 - (d) The statutory monopoly of chartered patent agents should be reviewed.
 - (e) Whitehall must set up better arrangements with British business to ensure that the country's commercial interests are taken into account in intellectual property negotiations in the European Community and in global arrangements.
- 6. Some of the above recommendations require legislation and we recommend an "Intellectual Property and Innovation Bill" which would be the centrepiece for a coherent and forward-looking statement on Government policy on innovation and commercial awareness in this country.
- 7. In the normal course of events I would have wanted your authority to discuss these proposals with Departments, especially DTI and Treasury, but also other Departments such as MAFF, DHSS and DES with a special interest in innovation. Although many of the issues are not particularly sensitive you may wish to keep circulation of the draft limited to named individuals. Testing our ideas with Departments would have enabled us to polish the draft into a final report for submission to you and such

other Ministers as you thought right, with a view to subsequent action. In current circumstances, I suggest that you look to Dr Nicholson in his new role as Chief Scientific Adviser in the Cabinet Office to undertake such follow-up. He and Dr Davies (on his staff) have led this work so far.

8. I am sending a copy of this minute and attachment to Sir Robert Armstrong only.

(Dictated by Mr Sporran but Signed in his absence)

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10 DOWNING STREET

From the Private Secretary

MR SPARROW

CPRS REPORT ON INTELLECTUAL PROPERTY RIGHTS AND INNOVATION

The Prime Minister has seen your minute of 14 July with which you enclosed the draft of the CPRS Report on Intellectual Property Rights and Innovation. Mrs Thatcher has agreed that Dr. Nicholson should now consult the appropriate Ministers on the report. She has stressed, however, that the report should not be widely circulated and copied and that Dr. Nicholson should ask Ministers for their comments fairly quickly. I should be grateful if Dr. Nicholson could take this into account in his consultations with Ministers.

I am sending a copy of this minute to Richard Hatfield (Cabinet Office).

(Timothy Flesher)

18 July, 1983



CABINET OFFICE

Central Policy Review Staff

70 Whitehall, London swia 2As Telephone or-233 7089

W.0458

19 July 1983

The Rt Hon Cecil Parkinson MP Secretary of State for Trade and Industry Ashdown House 123 Victoria Street London SW1

Dear Secretary of State,

INTELLECTUAL PROPERTY RIGHTS AND INNOVATION

J2 1917

- 1. Last December, the Prime Minister commissioned a CPRS study of intellectual property rights and innovation. She has now seen the attached draft and has asked me to seek, fairly quickly, any comments that you and other Ministers might have, in order that the report can be finalised. The Prime Minister has also asked that at this stage circulation of the report within Departments should be kept to a minimum.
- 2. I am sending copies of this letter and the draft report to the Secretaries of State for Education and Science, Foreign and Commonwealth Affairs, Defence, Health and Social Security, Agriculture, Fisheries and Food; to the Chancellor of the Exchequer, the Lord Chancellor and to Lord Gowrie. A copy of the letter only goes to Sir Robert Armstrong and to Mr Flesher.

ROBIN B NICHOLSON Chief Scientist







OLD ADMIRALTY BUILDING

WHITEHALL LONDON SW1A 2AZ

enquiries 273-3434 direct line 273-

The Rt Hon Cecil Parkinson MP Secretary of State for Trade and Industry 12/18

August 1983

Den lout,

INTELLECTUAL PROPERTY RIGHTS AND INNOVATION

Your officials kindly sent me a copy of the CPRS report and I have also seen the comments from the Chancellor and from Lord Cowrie.

The CPRS report makes a good case for extending the protection of intellectual property rights and developing more flexible means for business to use British ideas. But I have to say that I found the proposed machinery of government changes less convincing. In particular, I wonder whether you could be sure that a Patent Office at arms length would run smoothly and efficiently.

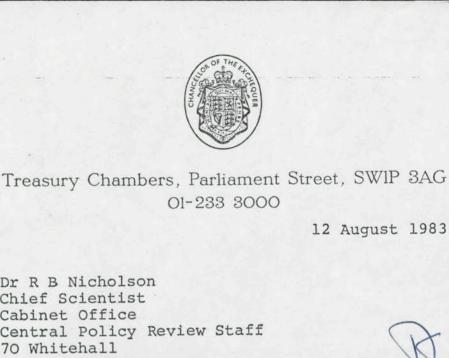
I understand, for example, that progress on improving the efficiency of the office has been slow. Implementation of the 1980 scrutiny is still not in clear sight. In these circumstances you may wish to assume that your officials' energies go directly into securing improvement in performance and generating the necessary management will to succeed before they are directed into machinery of government changes.

It was not clear to me that the present location in government of the Patent Office was an insurmountable obstacle to better performance. My advice, therefore, would be to give first priority to getting the operation of the Patent Office right and tackling the substance of the improvements recommended by the CPRS.

I am copying this to the Prime Minister, Chancellor of the Exchequer, and to Lord Gowrie.

ROBIN IBBS

Trade: Protection of Intellectual Proporty



Dr R B Nicholson Chief Scientist Cabinet Office Central Policy Review Staff 70 Whitehall LONDON SW1

Dear Dr Nicholson.

INTELLECTUAL PROPERTY RIGHTS AND INNOVATION

Your letter of 19 July asked for comments on the draft CPRS study on intellectual property rights and innovation. The Chancellor has asked me to reply: I am sorry this has been rather delayed. We have also now seen the Secretary of State for Trade and Industry's letter of 3 August as well as Lord Gowrie's comments of 4 August.

The Chancellor feels that there are two major areas to which we shall need to give further consideration. The first relates to the recommendations to increase Patent Office The second is about the future status of the activities. Patent Office.

Regarding the activities of the Office, like the Secretary of State, he welcomes the broad direction of the report, particularly those elements which aim for a more flexible and accessible patenting system for industry and inventors at large. He thinks there might well be scope for improving the system in these directions, and that if further study confirms this, the implementation of the changes should benefit innovation and the development of innovatory processes and products in this country. He is glad to see, therefore, that the Secretary of State is prepared to examine these ideas, and looks forward to hearing the results.

The second question relates to the status of the Office, and raises the difficult issue of the Office's future resources and manpower requirements if it remains within Government. On the question of "hiving off", he does not want to pre-judge the feasibility study which we understand the DTI are to put

rtainly shes of this off as a addition oposed characteristics.

in hand, but he certainly shares Lord Gowrie's doubts about the apparent motives of this proposal. The report appears to advocate hiving off as a means of avoiding the problem associated with the additional manpower which may be needed to implement the proposed changes. But the Government is to transfer work out of Government departments only when this is commensurate with sound management and good value for money. This will need to be satisfactorily demonstrated in the case of the Patent Office if hiving off is to become a viable option.

In the meantime, we understand that the Secretary of State is reviewing manpower requirements in the light of the recent merger as well as other pressures arising in his Department. In undertaking this review, he will no doubt take into account the possibility that the Patent Office's current responsibilities and activities may be increased if some of the ideas in the CPRS report are adopted, and also consider the degree of priority that should be attached to this in relation to the allocation of manpower resources within DTI as a whole.

I am copying this to the Private Secretaries to the Prime Minister, the Secretaries of State for Trade and Industry, Education and Science, Foreign and Commonwealth Affairs, Defence and Social Services, the Minister of Agriculture, the Lord Chancellor, Lord Gowrie and to Sir Robert Armstrong.

Yours sincerely,

Judith Simpson

MISS J C SIMPSON Private Secretary TRADE: Intellectual Property July 82



Foreign and Commonwealth Office
London SW1A 2AH

Prom The Minister of State Rt Hon Timothy Raison MP

TF Mg.

12 August 1983

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INTELLECTUAL PROPERTY RIGHTS AND INNOVATION

Thank you for sending us a copy of your letter to Cecil Parkinson of 19 July and the draft report on this subject. I have since seen Cecil Parkinson's reply and Grey Gowrie's comments.

I agree with the recommendation that there should be a careful analysis both of the industrial interests at stake in the UK and of the strength of the negotiating hand of the developing countries, before and during any further negotiations of the Paris Convention.

Your report mentions the Commission's proposal for a Regulation establishing an EC Trademark, but does not mention the UK's 10-year-old aim to ensure that the EC Trademark Office is sited in London. I would be grateful if this could be included in the report, as more needs to be done in support of London, especially as there are signs that the Germans are going to suggest Munich as the site for this Office.

We are ready to ratify the Community Patent Convention, although I understand there is a problem with the overlap between the Community Patent Court and our national courts. The main difficulty lies with Ireland and Denmark. The Danish Government despair of winning Parliamentary approval in the next five years, which strengthens the report's argument for going ahead without them.

We have no objection to the Report's recommendation that the UK take the initiative in requesting the Commission to come forward with practicable proposals for reconciling measures to deter anti-competitive abuse in patent agreements with the legitimate interests of industrialists.

I am copying this letter to recipients of yours.

TIMOTHY RAISON

Dr R B Nicholson CPRS Cabinet Office 70 Whitehall LONDON SW1

CABINET OFFICE Gentral Policy Review Staff 70 Whitehall, London swia 2As Telephone 01-233 7089 W.0515 9 August 1983 Mr Peter Smith Department of Employment Caxton House Tothill Street London SW1 Dear Smith, LETTER FROM SIR AUSTIN BIDE TO THE PRIME MINISTER Tim Flesher has sent me a copy of his letter to you dated *8 August and a copy of Austin Bide's letter of 27 July to the Prime Minister. The subject raised by Sir Austin was of course a major item for discussion at the Versailles Working Group on Technology, Growth and Employment whose report was published as Cmmd 8818 in March of this year. The Working Group found the problem of relating employment to changes in technology intractable in the political context in which it was working and settled for some very anodyne comments which are in Chapter 2 of the Working Group report. It appears from our discussions that there is considerable material on this subject within OECD and no doubt Sir Austin would use that as one of the sources for his own report. However I have to say that the study as it is outlined in Sir Austin's letter seems to me to be gravely deficient in two respects: first, I do not see how such a study can be done for the United Kingdom alone since many of the changes in employment pattern relate to structural changes in trade which lead to major increases in employment in some parts of the world and major decreases in others. For example, the loss of employment in the UK in the steel industry in favour of Third World countries and in consumer electronics in favour of the Far Fast has less to do with - 1 -

changes in technology than with changes in patterns of trade, yet these changes in employment in the UK are at least as important as those caused directly by the introduction of new technology. Secondly, I find it hard to see how a study can be done without an attempt to assess likely changes in the pattern of our society and in the pattern of work. For example, the most obvious characteristic of a person who is unemployed used to be that he/she stayed at home instead of going to work. Now, with developments in information technology, it will be increasingly possible for people to work from home or perhaps from local work centres, and such work is likely to become increasingly part time in the sense that substantially less than 40 hours a week will be involved. Thus the distinction between employment and unemployment will be blurred and part employment may become increasingly common. I do not know, of course, the extent to which society will accept such a pattern as a future norm, but I believe one has to take a view on this aspect of employment if one is to carry out properly a study along the lines that Sir Austin has indicated. All in all, a study, at least on the basis of Sir Austin's description of it, appears to me to be superficial and somewhat naive and I would have thought that if we were to suggest any blessing from the Prime Minister, which Sir Austin seems to want to have, it should only be in the most cautious terms. I am copying this letter to Tim Flesher. I go on leave at the end of this week and will not be back until 30 August but I'd be happy to discuss this matter further with you over the telephone before I go on leave. Your minds, ROBIN B NICHOLSON Chief Scientific Adviser - 2 -

TRAPE: Intellectual or Papenty: July 8.



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From the Minister of State

Lord Gowrie

MANAGEMENT AND PERSONNEL OFFICE Old Admiralty Building Whitehall London SW1A 2AZ Telephone 01-273 4400

Dr R B Nicholson Chief Scientist Cabinet Office Central Policy Review Staff 70 Whitehall London SWl

4 August 1983

Star Dr Nicholan,

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INTELLECTUAL PROPERTY RIGHTS AND INNOVATION

I was grateful for the opportunity to comment on the paper attached to your 19 July minute.

My direct interest is in the report's proposal that the Patent Office should be re-constituted as a separate, non-civil-service body. While I note Cecil Parkinson's views as recorded in his letter of 3 August, I must say that at first sight the case for this does not seem particularly strong. Certainly one has not been made out in paras 6.2-6.7 of the report, which concentrate almost exclusively on the advantages of exclusion from the manpower count.

Criteria for considering proposals to establish new non-Departmental public bodies are set out in the MPO publication "Non-Departmental Public Bodies: a Guide for Departments". In practice, the most relevant considerations are likely to be:

- (i) whether the operation in question is largely, or completely, financially self-supporting;
- (ii) whether the functions concerned can more properly be discharged at arm's-length from Ministers; and
- (iii) whether hiving-off is likely to improve efficiency, for example by enabling specialist expertise to be directly involved in management.

The first point clearly has relevance to the Patent Office. As regards the second, however, the Office's role in operating a statutory monopoly, involving considerable exercise of discretion,

suggests a strong prima facie case for close Ministerial supervision. This was the view taken by the inter-Departmental Committee set up following the 1970 Banks Report who, in a review of future staffing and organisation of the Patent Office, recommended against hiving-off. More recently, the case for hiving-off was specifically considered during a 1980 Rayner scrutiny of the Patent Office. The team recommended against, largely on efficiency grounds. They commented particularly on the likelihood that policy and international representational functions would need to be duplicated, that career management of non-specialist staff would be adversely affected, and that future flexibility would be reduced. Finally, neither the 1970 review nor the Rayner scrutiny - nor, indeed, your own report - have advanced any argument that the Office's efficiency would be improved by involving representatives of the industry directly, for example through a management board. This was, of course, the primary justification for constituting the Civil Aviation Authority (which you mention as a possible precedent) as a non-departmental public body. (The 1969 Civil Aviation White Paper gives the background.) I am copying this letter to the recipients of yours. Yours sicerely, LORD GOWRIE

May from Angr - 5 AUG 1983 = 000



DEPARTMENT OF TRADE AND INDUSTRY

Room 11.01 Ashdown House 123 Victoria Street SW1E 6RB

Telex 8813148

Telegrams Advantage London SW1

Telephone Direct Line 01-212 3301

Switchboard 01-212 7676

Secretary of State for Trade and Industry

3 August 1983

Dr Robin Nicholson FRS Cabinet Office 70 Whitehall

London SW

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Thank you for the copy of your report on Intellectual Property Rights and Innovation that you sent me on 19 July. This is a report which is full of good ideas and, in general, these are very welcome here. As you will recognise, some of the matters dealt with in the draft are complex and, indeed, there are a number of points on which the report suggests only that "consideration should be given". I assume, therefore, that at this stage you do not want considered views on all or even most of your proposals, but merely to know from me whether I see any matters in the report which require change or amplification before the report is finalised. Overall, I do not, but I have some initial comments to offer.

- 2 First, some of the ideas you put forward in the report are already under consideration in this Department. In particular:
 - a) the regulation of service marks is already to be the subject of a private member's Bill which we should welcome, once the question of staff to carry out the work (40 in number) has been settled;
 - b) the idea of a two-tier patent system involving the introduction of a petty patent system has been considered several times and your report will give a further impetus to a fresh look at this. We now need to think more exactly about what the report means by "a lower level of invention than for a normal patent", as also about the interaction of the proposed petty patent system and functional design protection. On this, as part of the Government's work on the Green Paper on Copyright, my Department has already been considering the feasibility of registering designs for functional articles manufactured in quantity.
- 3 On the many new ideas in the report I have the following comments:
 - a) on the suggestion that we adopt the <u>ex parte right of re-examination</u> that exists in the United States, you will recognise that the present law allows the Comptroller-General, if requested by the parties, to hear an infringement action during which the validity of the patent may be put in issue. Broadly, the Comptroller may at any

time revoke a patent on any of the grounds which emerge during the examination process. However, the ex parte approach adopted in the United States may have advantages and we are looking into this;

- b) on the proposal for <u>compulsory licences</u>, this is a suggestion with which in <u>principle I tend to agree</u>. The great practical question here is to define how the transfer of know-how is to be achieved.
- c) your description of the position of patent agents as a statutory monopoly may need rephrasing. As you will know, nearly 10% of the applications to the Patent Office come from inventors who prosecute their own applications, and are treated with every sympathy and consideration. Moreover, the Patents Act does not actually forbid any person from acting on behalf of another before the Office, but the Comptroller has the right to refuse to deal with an unqualified person who is engaged in a regular practice of this sort. But on the merits of the proposal, I think frankly that we shall need to look carefully from the inventor protection point of view at the situation that could arise if anyone could offer to negotiate on behalf of inventors generally with the office.
- On a more general note, I very much welcome the thrust of the report, which links the Patent Office's activities even more clearly to the exploitation of new technologies. The suggestion for a marketing exercise and for an awareness campaign are particularly relevant here. I should, nevertheless, make the point that all these extensions of activity service marks, petty patents, registered designs, etc would be genuine extensions of functions which would require staff to handle them, and in the context of the current staff numbers exercise it is difficult to see how we would be able to find these. You make a recommendation for "hiving-off" the Patent Office as a possible alternative. I too have been thinking that hiving-off the Patent Office to a separate non-Departmental public body might be an attractive option and I have already asked my officials for a detailed study on this matter.
- 5 May I suggest that on the detailed text of the report you ask one of your staff to consult Mr Davis, Comptroller of Patents, as to accuracy. I imagine that once the text is finalised you will be consulting more widely about your proposals.

6 I am sending copies of this letter to the recipients of yours.

TRADE: Intellectual Property
July 82

A MIK BES

DRAFT

INTELLECTUAL PROPERTY RIGHTS AND INNOVATION

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SUMMARY

- 1. New products, new services, and new manufacturing processes, no less than artistic works or scientific advances, have an idea as their origin. If the idea can be recorded and defined in some way it becomes a property intellectual property which can be bought and sold. It can be legally protected against uninhibited copying by use of intellectual property rights such as patents, registered designs, trade marks and copyright.
- 2. A nation such as the United Kingdom relies heavily on getting value from its intellectual property. We have a limited raw material base and a small home market. But we have a good education system, a tradition of world-leading inventions and of involvement in international trade. The ability to claim ownership of ideas is a vital step in securing a profit on them.
- 3. The overall structure of our intellectual property system is in line with that of most other countries: and in general it works well, particularly for the larger companies. But nationally, compared to our main competitors, there is insufficient awareness of the importance of intellectual property rights. The rights are relatively innaccessible because their use is complex, costly and time consuming. The procedures give the impression of an arcane world rather than of a modern technological Britain. While the Government devotes considerable resources to encouraging innovation generally, it does not give adequate priority to providing the system of intellectual property rights that British business requires.
- 4. This report considers how best to support the commercialisation of ideas, and in particular how to help small but enterprising firms. They are least able to utilise the present rights but may need them most to protect their main asset an innovatory product. Larger competitors will have more legal resources as well as greater manufacturing capability and an established position in the market.
- 5. We are not recommending a fundamental overhaul of the system but we are suggesting a package of changes which fall into three main categories:

Coverage and consistency

Rights should be available where they would support commercial exploitation. We have drawn on the rights available to overseas business and recommend

- the extension of registered trade marks to cover <u>service marks</u> intended to give the service industries the same rights as manufacturers, as is generally the case abroad, and to respond to the growing economic importance of the service sector;
- the introduction of a <u>registered inventions</u> scheme to give a more readily accessible form of protection; of particular benefit to small businesses;
- the amendment of the <u>design copyright</u> laws to remove an anomaly whereby certain mass produced articles are over protected.

Promoting use and limiting abuse

It should be easier for the rights to be used and defended on the one hand and for any abuse to be corrected on the other. Exploitable ideas should not lie dormant. We recommend

- an improved right to have a <u>patent re-examined</u> to be modelled on a new US right which offers an expeditious way of resolving certain disputes without costly and lengthy proceedings;
- a more effective form of compulsory licence which is the principal way of liberating unused invention and curbing abuse of monopoly;
- a more thorough attention to the interests of British business in international discussions in particular over European Commission moves on anti-trust regulations and negotiations within the Paris Convention;
 - new rights for employee inventors to allow them to take over their own invention if the employer is not intending to exploit it.

Awareness and accessibility

Little would be gained by the above measures unless those able to make commercial use of the intellectual property system, in fact do use it. To encourage this, we recommend

- more active <u>promotional work</u> by the Patent Office to market the importance of property rights to those with exploitable ideas, and also the use by others of published patents and registered designs as a national technical database;
- a review of the statutory monopoly held by registered <u>patent agents</u> to consider allowing others to function as paid representatives of inventors, to bring more price flexibility and to leave the choice with the customers of the property system;
- -a Whitehall Liaison Group bringing the interests of other Departments more clearly into the discussion of domestic and international issues, but also inducing them to realise the importance of the intellectual property rights for innovation.

Nearly all these recommendations will be more beneficial to the small, entrepreneurial companies than to the big battalions. But the latter are relatively more satisfied with the system and where they are not, have the leverage to negotiate deals between themselves. Our proposals should widen the opportunities for the smaller companies who depend more on the domestic legislation.

6. The report has two concluding recommendations which concern the resource and legislation implications of implementation. Firstly, to put the above measures into effect could involve a larger number of staff in the Patent Office and a larger overall budget. Even though industry can pay completely for the extra resources through fees, the difficulty is that any growth in the size of the Patent Office, while it is a part of a Government department, will be unwelcome. We recommend

- the Patent Office becoming a separate <u>statutory body</u> rather than remaining a part of the DTI it should be self-supporting from fees, and free to hold money against investment programmes. The Secretary of State should retain the power to issue directives and appoint advisory committees.
- 9. Finally, though each of the individual measures above is desirable, taken alone they would not each command a high priority for legislative time. However taken together in one bill they could form the core of a coherent and forward-looking statement of Government policy on innovation and commercial awareness in this country. The themes of the statement would be the individual's role in the exploitation of ideas and the awareness of the value of the nation's intellectual property. We recommend:
- an <u>Intellectual Property and Innovation Bill</u> to bring together the new measures proposed in this report to form the core of a major statement of policy.

INTELLECTUAL PROPERTY RIGHTS AND INNOVATION

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THE REMIT

In December 1982, the Prime Minister approved the following remit for a Central Policy Review Staff study of intellectual property:

As part of its work in the general area of the competitiveness of British industry and the exploitation of innovation, the CPRS is asked to examine:

- i. whether Government, directly or by the framework that it provides, adequately encourages awareness of the potential economic value of intellectual property both as a traded commodity and otherwise;
- ii. the different approaches to these matters by our major trading competitors and elsewhere, and whether there are applicable lessons for the United Kingdom;
- iii. whether the present structure for the protection of intellectual property, including legal rights and their enforcement, and the methods of Government policy forumulation, are best suited to the national interest both at home and abroad;
- iv. whether the present methods of protecting intellectual property are, on balance, well suited to encouraging exploitation;

and to make recommendations.

CHAPTER ONE

INTRODUCTION AND PERSPECTIVE

- 1.1 New products, new services and new manufacturing processes, no less than artistic works or scientific advances, have an idea as their origin. The idea may be the concept of a major invention, the accumulated know-how that allows an incremental advance, or the judgement that a certain shape will be appealing. If the idea can be recorded and defined in some way it becomes a property intellectual property which can be bought and sold and legally protected against uninhibited copying. The major forms of intellectual property protection are patents, registered designs, trade marks and copyright: a description of these is at Annex A.
- 1.2 Intellectual property rights are generally limited territorially. But our domestic law is being brought progressively into line with European practices. More widely, a number of international agreements, usually allowing for reciprocal rights, provide a framework for international co-operation. A description is also at Annex A.
- 1.3 The UK relies heavily on getting value from its intellectual property. We have a limited raw material base and a small home market. But we have a good education system, a tradition of world-leading inventions and of involvement in international trade. However our national strength in producing exploitable ideas will not benefit the UK unless we earn a return on them, whether they are exported as technology or developed first into products at home. The ability to claim ownership is a vital step in securing this return and is therefore an important area of national interest.
- 1.4 This report considers how far the current system of industrial property rights and obligations encourages that innovation which is capable of commercial exploitation and in particular that of small but enterprising firms. It does not go into the wider field of what general measures would best stimulate innovation.

The Context of Intellectual Property Rights

- 1.5 Before examining the present intellectual property regime on its own, we believe it is worth setting out more generally the distinct interests of inventors, producers and consumers and then describing the main ways in which these are reconciled.
- 1.6 The interests of all parties, and therefore of the nation as a whole, would appear to be served by encouraging the bringing of new products and manufacturing processes to the market. However interests can diverge over how this should happen and in the legal rights and monopolies involved. For example the 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 more cheaply or effectively;
- 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.
- 1.7 The following are the main ways in which all developed countries create a legal regime or take other action in an attempt to strike a balance between the interests described above:
 - i. A product is brought to the market only because the producer has been able to keep the know-how behind it $\underline{\text{secret}}$ and thus hidden from potential competitors and copiers. Employees can be bound by the $\underline{\text{law}}$ of confidence.
 - ii. The parties involved establish their respective rights and obligations by a formal contract. Examples are know-how and confidence agreements which place obligations on customers, and licensing arrangements, all enforceable in law, by which an innovator allows others to manufacture a product for a fee.
 - iii. The public authorities may intervene:
 - a. by a <u>subsidy</u> to the producers of innovation so that the chances of the new products' wide public availability are enhanced;
 - b. less directly by the granting of monopolistic <u>legal protection</u> to the innovative idea. The protection is usually limited for a period of time, protected from abuse and subject to disclosure so that incentives are given to innovators but consumer protection from long term monopoly profits is also established. This is the essence of intellectual property rights.

The Case for Intellectual Property Rights

- 1.8 A system of intellectual property rights should bolster the trade in ideas and encourage new products and processes to reach the market. That a system based on the principles in 1.7 iii. b. should meet these objectives, sounds plausible in theory. It should provide adequate benefits and protection for all the parties as follows:
 - i. Where R&D costs are high, the inventor and producer (whose combined role we call that of the <u>innovator</u>) would not make the original investment if an imitator could immediately scoop the market with cheap copies.

- ii. Even if R&D costs are not particularly high, innovative small businesses, which do not have the legal resources, manufacturing power and dominant marketing capability of the large firm, need protection. They would be hit particularly hard if their only asset, product innovation, could immediately be copied and sold at a punitively low price, subsidised from elsewhere.
- iii. The <u>consumer's</u> interest is served by disclosure. Without intellectual property rights there would be both a clear disincentive to invest in the more expensive forms of innovative research and more reliance on commercial secrecy. The latter would contribute towards the duplication of research effort. By requiring disclosure, the intellectual property system facilitates the exchange of information and makes possible "inventing around" the monopoly area. This should encourage new processes and products.
- iv. Wider use of new ideas is encouraged by legally protected intellectual property which allows trade to develop on the basis of licences. Even large firms may baulk at the difficulty of exploiting fully a new market: Bell Labs did not attempt to monopolise the applications of the transistor. For small firms or private individuals, without the will or resources to produce and market their innovation themselves, the return on investment will often be dependent on licensing the intellectual property for use. Trade is likely to be encouraged most if the licence provides for royalty income (based on the incidence of use, on the profits, on sales, or some combination) rather than a once-for-all fee that has to be settled before the market is established.
- v. The consumer and competitor are shielded from the abuse of monopoly power both because monopoly rights are circumscribed and because intellectual property is not exempt from the application of the Restrictive Trade Practices Act or the Competition Act and investigation by the MMC.
- vi. For a <u>nation</u> which produces proportionately more good ideas than most countries but has a relatively small home market and has been less successful in the application of technology, the public good lies in trading products and ideas. It is therefore in the overall national interest that a strong world wide system of protecting intellectual property should exist.
- 1.9 It is possible to imagine an alternative one-sided legal scheme which gave much more protection to the innovator. However, establishing a legal regime which simply allocated ownership and gave unrestricted monopolies to intellectual property might well in practice stifle innovation by over protecting it, and would certainly be contrary to the consumer's and potential competitor's interests. In theory at least a balanced system of the kind described should avoid these pitfalls and should provide a good basis for encouraging a flow of new products. But the acid test as always must be how it works in practice.

The System in Practice

1.10 The available protection is widely taken up. The UK Patent and Trademark Office continues to receive a large number of applications each year: in 1981 some 39,000 for patents, over 6,000 for registered designs, nearly 21,000 for trademarks. These cover a broad technical front. Only patents show a decreasing trend over time which results largely from the rapid expansion of applications to the European Patent Office since it was set up in 1978.

- 1.11 The use made of patents once granted is difficult to measure. But a questionnaire to a number of UK firms carried out for the 1970 Banks Report indicated that some 30% of inventions for which the patent was still in force, were in direct commercial use. A US 2% sample survey of all patents issued in 1938, 1948 and 1952 showed that 50-60% of patents were utilized at some time during their life.
- 1.12 It is even more difficult to assess how much intellectual property rights contribute to the well-being and technical progress of the UK. They are only one way and not an easily identifiable way in which success in the market place can be achieved. Among many others are: the size and quality of R & D investment; the lead time of product development; marketing skills; and the reliability of products. While it is therefore important not to overstate the role of legal rights on their own it does seem that they play their part.
- 1.13 This part varies greatly between industries as the following examples show:

Pharmaceuticals - expensive R&D, long development times, long product life, world-wide markets. Patents and trademarks are held to be essential for investment.

Consumer electronics - fast moving and fast expanding, manufacturing capability and marketing dominate, patents largely irrelevant. Cost of patent protection comparable to cost of invention. Instead of patents, manufacturers have relied for such protection as they have felt necessary on trade mark registration, on contractual confidence agreements and in keeping the invention secret.

Aircraft jet engines - very difficult, technology needing advanced and specialised manufacturing ability and design staff; few purchasers; capability and proven reliability more important than intellectual property rights.

Our approach

- 1.14 Overall, our look at the system and our discussions suggest that, with some exceptions, it is not in need of fundamental overhaul. We were initially sceptical that it could cope with the new technologies but found that so far it has been able to adapt to these. We have also borne in mind that there exists an international system, which it does not lie in our power to dismantle should we wish to introduce a completely different approach. We have therefore concentrated in this report on assessing whether there are practicable changes which might enable the system to be better used to foster innovation. In particular we have looked at the way it helps small businesses. They operate proportionately more on the national scene than larger companies but are less well served. The next Chapter sets out the framework of our analysis to find such improvements.
- 1.15 For a number of potential problem areas we concluded either that specific changes could be made to meet new circumstances or that Departments had the problems in hand. Some required more thorough study than we could devote to them. These are not included in the main report but our preliminary assessment of three such areas protection for biotechnology, protection against counterfeiting and variation in the patent term is at Annex D. Our study excluded questions not closely related to industrial innovation such as the moral rights of artists, performing rights and video piracy.

CHAPTER TWO

OBJECTIVES

2.1 We look at three main sets of issues in considering whether modifications to current policy would increase the contribution which intellectual property rights and obligations make to innovation.

Coverage

- 2.2 The first concerns the coverage of intellectual property rights and obligations. We examine whether the legal protection available, particularly by comparison with that enjoyed overseas, adequately meets the needs of British businesses small but enterprising companies as well as the big companies. Rights should exist for those areas where protection may be crucial for commercial exploitation and where success is important for the UK's economic future. On the other hand the degree of protection offered should not be higher than is needed. It follows that not all intellectual property should receive the same kind and amount of protection but that any discrepancies should be clearly justified by the nature of the product and its market.
- 2.3 To meet these objectives Chapter Three discusses changes to the present arrangements:
 - i. to extend the system to cover a wider range of intellectual property;
 - ii. to achieve greater consistency in the way the system applies to some elements of intellectual property.

Use and abuse of rights

- 2.4 The second set of issues relates to the ease with which in practice the rights can be used and abuses corrected. The rights should be sufficiently accessible and easy to defend against unfair allegations so that even small businesses are prepared to use the system. At the same time the monopolistic aspects of intellectual property rights should not be abused in order to lock in inventions and prevent their commercial exploitation, by the inventors themselves and by others, and to keep out legitimate competition. Exploitable inventions should not be left unexploited. Any changes in the international system to deal with monopoly abuse should not harm the legitimate interests of UK businesses.
- 2.5 Chapter Four therefore discusses changes:
 - to make it less expensive and complicated for the innovator to defend his property rights;
 - ii. to enable the newcomer on the market or other competitor to challenge more effectively abuses of property rights;
 - iii. to enable proper attention to be given to our industrial interests in international and European discussions;
 - iv. to expand the opportunities for employee inventors to exploit their inventions.

Awareness

2.6 The third set of issues concerns the awareness and use of intellectual property. Unless there is a proper appreciation of the value of intellectual property as a resource, unless there is easy access to the existing state of the art, unless companies are interested in expanding intellectual property trade, a carefully constructed and balanced system will avail little.

- 2.7 Chapter Five therefore discusses changes:
 - i. to improve the image of intellectual property;
 - ii. to make the system more penetrable to non-experts;
 - iii. to simplify use of the system in Europe.

CHAPTER THREE

COVERAGE AND CONSISTENCY OF RIGHTS

- 3.1 Under this heading we measure current practice against two objectives:
- The system should cover all areas where intellectual property rights would further the commercial exploitation of ideas to the benefit of the inventor and consumer alike. The small man's interest should not be ignored.
 - The system should be reasonably uniform so that comparable areas have a comparable mix of rights and obligations.

On coverage, we found that there were only two major areas which the UK - in contrast to many other countries - did not include in the national intellectual property system: provision for service marks and for a second tier of patents. On consistency, we found that there was one major anomaly where similar products received different treatment: mass produced products protected by registered design and those protected by design copyright. We make recommendations on both below.

Coverage: Service Marks and Two-tier Patents

Service Marks

- 3.2 In the UK, there is a system for registering trade marks for goods. This provides the trader with a legal title to the exclusive use of his trade mark for the registered product and thus gives him a business asset on which he can build goodwill and reputation. It enables the customer to identify goods for both the initial purchase and repeat orders. In the UK there is no similar system for registering marks for services such as banking or laundry. In 60 other countries, including most of our major markets, there is.
- 3.3 In the last Parliament there was a Private Member's Bill to introduce registration for service marks. This was opposed by the Government mainly on the grounds of not wanting to add to the tasks and staff numbers of the Trade Mark Registry of the Patent Office. However Lord Cockfield, then Secretary of State for Trade, recently suggested that the Government should consider revising its position.
- 3.4 We believe that there are strong arguments in favour of giving equivalent protection to services as to goods in the registration of marks:
 - i. The UK's share of national income from the service industries is increasing. The Government is actively encouraging certain service sectors eg telecommunications and information technology. To introduce service marks should support the Government's objectives in this area.
 - ii. Relying on common law in the event of one business passing off its services as those of another does not offer sufficient protection. Taking such action is expensive and difficult when compared with enforcing a clearly registered property right. Common law has not been considered sufficient protection for goods, hence the existence of trade marks, and there are further difficulties for services because of the uncertainties of extending common law right out of the original area of trading in goods. It follows that service marks are at least as justified as trade marks.

- iii. All the industrialists we spoke to supported the establishment of a resistered service mark in the UK. The 1974 Mathys Report on Trade Mark Law and Practice reported unanimous evidence in favour of such a registration system and recommended in favour (we do not know why this was not acted upon at the time). It is difficult to assess in advance what the demand would be but Mathys said it would be substantial and the Patent Office estimates there could be 10,000 UK applications in the first year. In the US the proportion of marks for services initially was only about 1% of total registrations but by 1974 was some 19% of all marks registered. In France marks for services were between 14-15% of all marks registered in 1971. Germany brought in service marks in 1979. We were told that the take-up in practice, contrary to expectations, had been considerable 20,000 last year.
- iv. A Convention on Community Trade Marks is being negotiated. But implementation is a number of years off and British services need a system now. Without a national registration system it will be difficult to have the rights on unregistered UK service marks incorporated into the Convention and to stop foreign companies having pre-emptive priority dates on similar marks. It will also be easier for us to argue for a Community system aligned to the best interests of British business if we have had practical experience of a national system.
- 3.5 The national interest in introducing service marks as outlined above is strong. The objection that some extra staff would be needed perhaps 40 if 10,000 applications a year are received should not be allowed to sink the proposal. The registration of service marks would be self-financing and paid for by those who use them.
 - $3.6~\underline{\text{WE RECOMMEND}}$ that the registration of trade marks should be extended to services.

Two-tier patents

- 3.7 Currently in the UK it is not possible to get limited protection for incremental or minor inventions which are ineligible for full blown patents. In many other countries, including Germany, Japan, France, Italy and Australia, there is legislation well suited to such inventions with provision for registered "petty" patents or utility models. The distinguishing feature of these petty patents are that they last for a shorter period than ordinary patents, are more easily obtained but leave open the door to legal action if there is significant infringement and if the market warrants it.
- 3.8 The possibility of introducing a petty patent in the UK has been looked at in the past, but not since the 1977 Patents Act. That Act strengthened British patents by introducing more rigorous requirements for absolute novelty (ie world wide) and a high level of inventive step (ie something which would not occur to any skilled practitioner in the subject) and therefore a more thorough examination in the Patent Office. It is significant that the Johnson Report commented (cmnd 1808, 1962):

"The minority view put to us by the Chartered Institute of Patent Agents, the body most qualified to speak on this subject, was in favour of the introduction of a utility model system. The majority view was against it but only because [our underlining] the standard of inventiveness required in practice by the British Patent System is not high, with the result that protection is given to the kind of novel articles the Gebrauchmuster (ie petty patents) system protects. It was clear that this view would change if the standard of inventiveness were to rise to an extent which excluded utility models."

That is precisely what happened to the standard of inventiveness in the 1977 Patents Act.

- 3.9 However, the Banks Report (Cmnd 4407, 1970), which led to the new Patents Act, found against petty patents. It argued that foreign experience suggested the existence of petty patents would not necessarily diminish the work load on the Patent Office; that any system for granting monopolies even for a short period, without proper examination, was open to abuse; that as extent to which such patents could be enforced; and that a second patent system would give rise to legal applications over what was capable of being protected by each. The Chartered Institute of Patent Agents did not accept these arguments.
- 3.10 We believe that there is a gap in the system which may be inhibiting innovators, particularly the smaller companies, from exploiting their ideas commercially. Many companies operate only in the domestic market. Many only need easy access to shorter term protection because the products which stem from their inventions have a short life time. Many of their innovations are incremental not fundamental. Many do not want to go to the hassle and expense of getting a full blown patent before it is clear that the invention is marketable. The result probably is that many inventions lie unexploited for lack of any protection. We have been struck by the fact that small businesses and those that act for them are in favour of a system for protecting minor inventions. Patent agents employed full time in large companies are neutral if not hostile. The fact that industrial fora such as the CBI Intellectual Property Panel are dominated by these agents suggests that the small man's views have not hitherto been properly taken into account.
- 3.11 The arguments in the Banks Report can be refuted as follows:
 - i.We have already argued in relation to service marks that an increase in the load on the Patent Office should not be a conclusive argument against change which fosters innovation and commercial exploitation. In any case the Patent Office can charge to recover its costs fully.
 - ii. Before any rights were asserted we would envisage that examination of the validity of the patent could be demanded. A registration system provides a simple and cheap form of initial protection and avoids the need to go through a thorough, and costly, examination for each application. But if there is a challenge or assertion of right, then the validity of the petty patent can be tested.
 - iii. Legal complications over what would be capable of protection under petty and normal patents could be overcome by making clear that both would be available for the full range of patentable inventions but that the degree of inventiveness and novelty required were different.
- 3.12 Foreign experience in petty patents or utility models shows that they are workable and widely used if available. The most common overall features of petty patents abroad are a registration system (which is therefore less costly and time consuming than a normal patent examination), a lower requirement for inventive step should the petty patent be challenged and therefore examined after grant, and a shorter life time than for a normal

patent, usually around 6 years. There are variants. In Germany it is essentially a registration system restricted to mechanical arts. In France and Australia however petty patents are available for the full range of patentable inventions. In some systems such as the Japanese, they are fully examined from the outset.

- 3.13 We conclude that there is a strong case for introducing in the UK a system with the following features:
 - easy access to obtaining a property right through registration;
 - requiring only local novelty and a lower level of invention than for a normal patent;
 - requiring defence of the validity of the patent only if it is challenged;
 - giving protection for a considerably shorter period than for a normal patent.

We attach, in Annex B, the outline of one possible scheme incorporating these features. We refer to it as the <u>Registered Invention</u> scheme. It is based on a model developed by the Chartered Institute of Patent Agents at the time of the Banks Committee.

3.14 <u>WE RECOMMEND</u> that a petty patent along the lines of the registered invention scheme (described in Annex B) should be adopted.

Consistency of Rights Across the Intellectual Property System: Design Copyright Anomaly

- 3.15 When an article originating in an industrial design, such as an engineering drawing, is manufactured in quantity it is automatically covered by copyright but only for 15 years rather than the 50 years plus lifetime of the ordinary copyright protection. This is known as design copyright.
- 3.16 Articles protected by design copyright, eg car exhausts, are in a privileged position in two respects:
 - i. The manufacturers can claim against the infringers a particularly severe form of damages, conversion damages, which are in effect based on turnover rather than on profits. The infringers are liable to such damages even when the products are purely functional and stem from ideas which are obvious. On the other hand, holders of registered designs for which ornamental but not functional articles are eligible and patentees can only claim damages based on the profits they have foregone by virtue of the infringement. Yet both these latter categories have to meet more rigorous requirements before gaining protection.
 - ii. Copyright protection is acquired automatically whereas registration and examination for validity are required for registered designs and for patents. As a result competitors may be uncertain whether a design copyright will be used against them especially as it can give such blanket coverage.

Moreover:

iii. Design copyright is not a form of protection available in any other country. Many have a specific unfair competition law which can be used against copying of manufactured articles but only when there is a proven case of economic damage to the original manufacturers. In some countries, registration rights are available for functional goods.

- 3.17 The major anomaly is therefore that functional goods can get 15 years of automatic protection which can result in conversion damages if infringed. Conversion damages are disproportionately large compared to that provided for other, often more novel and inventive, forms of intellectual property protection. It also creates an uncertain position for companies who reproduce articles such as spare parts even if they sell under their own name: because there is no registration they do not know their legal position until action is taken against them. The existence of conversion damages may look superficially attractive to the originator of the design. But in practice infringement action against competitors is likely to be very expensive as the latter will fight hard against such draconian damages. Small companies may even be inhibited from going ahead with production.
- 3.18 To correct this anomaly, it would be reasonable to prevent the application of conversion damages to design copyright. But that would not deal with uncertainty created by non-registration and it would leave us at variance with international practice. And if our proposal for Registered Inventions is adopted in the future, articles protected by copyright will be in an even more anomalous position. If there were a way of introducing a register of design copyright, two of the anomalies would be dealt with and the case law would remain: but spare parts would continue to be seen as outside the main national and international systems for intellectual property. We believe therefore that design copyright should be replaced. Copyright would then be restricted to what it was originally intended for ie literary or artistic works.
- 3.19 Since we have a system for registering designs with an aesthetic novelty there is a case for extending the concept to articles deriving from designs with a functional novelty. The period of validity a maximum of fifteen years equates to that of design copyright which seems to have been adequate for the vast majority of cases. However, registration will clearly increase the work load on inventors and on the Patent Office. The increase could be considerable given the large number of spare parts which are currently protected by design copyright. But it may be possible to devise a notification scheme eg reference to the part number on the manufacturer's catalogue, which should be less onerous. This would have the additional advantage of only including goods in commercial production.
 - 3.20 <u>WE RECOMMEND</u> that there should be further examination of the feasibility, particularly cost, of replacing design copyright with registered designs as the intellectual property right available for functional articles manufactured in quantity.

CHAPTER FOUR

USE AND ABUSE OF RIGHTS

- 4.1 Under this heading, we consider whether more could be done to meet the following objectives:
 - it should be possible for all the parties involved to make use of the rights provided and to correct any abuses;
 - exploitable inventions should not lie dormant.

To this end, we looked first at the overall balance of the system for the enforcement of rights and the correction of abuse. We then looked at ways in which it might be made to work more effectively with a view to commercial exploitation to maximum national advantage. We make recommendations below on simplifying the testing of the validity of a patent; on making the system for granting licences against the wishes of the patentee - compulsory licensing - more effective; on pushing for agreement in the EC to pursue patent agreements only when they result in monopoly abuse in practice; for improving awareness of the implications of the developing countries' proposals on compulsory licensing in the Paris Convention negotiations; and on giving more rights to employee inventors over the exploitation of their inventions.

4.2 Most of the changes proposed will be of more use to small businesses and the individual than to the larger companies. The large companies have the resources, legal and otherwise, to cope with the present system and the bargaining power to conclude licensing deals between each other despite deficiencies in the system. We would not expect any of the changes to lead to significantly more litigation. On the contrary, the purpose is to make the legal framework more credible as a last resort and so to give the parties more incentive to reach satisfactory arrangements voluntarily. There may however be some test cases initially.

Civil versus Criminal Law

4.2 We considered briefly whether it was right that, with some exceptions, infringement of intellectual property rights was not a criminal act. The arguments for strengthening the prosecution process through use of criminal law are that intellectual proprty is a property like any other and is becoming increasingly important, that unlawful use is equivalent to theft and can deprive the owner of significant commercial benefit. On the other side, the current system, even if it does not in practice always work well, does provide a framework for satisfactory redress: the owner of a patent, trade mark or copyright can sue for civil damages and these are such as to act as a deterrent against infringement; he can also be granted, on the basis of prima facie evidence of infringement, an interlocutory injunction to stop trading by the other party; there is provision for the Comptroller General of the Patent Office to grant compulsory licences if the patentee is not using the patent. We concluded that use of the civil system could be facilitated and the legal processes simplified, and there was no need to have to further resourse to criminal law. The latter in any case was unlikely to resolve most of the current problems or lead to more commercial exploitation of intellectual property.

Tests of Patent Validity

- 4.3 There are many problems, particularly for the small firm, in litigation. Not only is it expensive costs in a simple case could be £5000 £10,000 to the winner and £50,000-£60,000 to the loser but it also takes up valuable managerial effort. The delays in reaching a final decision can mean that commercial opportunities are missed. All this helps to explain why nine out of ten intellectual property cases submitted to Counsel are settled before they reach court. In many other cases, the patentee is deterred from starting to pursue the infringer by the complexities and costs.
- 4.4 Simplification of the legal processes in general, and a reduction in the almost mandatory role of the legal professionals, is a requirement much wider than intellectual property. However it is possible to reduce one particular feature of intellectual property cases dispute about the validity of the patent through a specific simplification.
- 4.5 The alleged infringer nearly always disputes the validity of the patent and the majority of court cases have this at their core. The patentee in the UK cannot at present attempt to dissuade the infringer from pursuing the validity point expensively through the court by asking the Patent Office to reexamine the validity of the patent on the basis of submitted evidence. Nor can the alleged infringer challenge the validity of a weak patent in a simple non-adversarial manner. The US, on the other hand, does have provisions which might be adapted to the UK situation.
- 4.6 The US recently introduced an amendment to its patent legislation to allow anyone to request a re-examination of a patent at any time after grant (though it must be on the grounds of hitherto unrevealed prior art ie knowledge or use of the invention not identified at the time of the grant of the patent). If someone other than the patentee makes the request, the patentee is notified and allowed a little time in which to comment. Otherwise the whole procedure is ex parte and therefore non-adversarial. The US system is described at Annex C.
- 4.7 It is expected that one result of this new US procedure will be to help to resolve disputes expeditiously and without excessive legal cost before they reach the Court. If the US Commissioner for Patents upholds the patent on reexamination, that might well discourage the competitor from going to Court. Conversely if the competitor gets a verdict from the Commissioner that the patent is unsound, that might well discourage the patentee from fighting the case in Court.
- 4.8 We believe that a provision for ex parte re-examination of the patent would be of considerable help to the small innovator in the UK; and, departing from the US model, we would want re-examination to be able to include all evidence, not just hitherto unrevealed art. The applicant for re-examination would pay the full costs but this would be much lower than the current legal costs. Patent barristers and agents whom we have consulted are, perhaps understandably, unenthusiastic about such a change but admit that it would prevent many cases (estimates have been as high as 90%) proceeding further into the system.
 - 4.9 WE RECOMMEND that an ex parte right of re-examination be introduced.

Protection Against Patent Abuse: Compulsory Licences

4.10 There are several procedures for correcting various forms of patent monopoly abuse such as non-working, keeping prices high by deliberately restricting production, obstructing licensing deals. But these are virtually never used. We do not believe that this is because no abuse takes place but because the chances of first getting adequate redress and then turning it into a commercial success are heavily weighted against potential applicants. We suggest some adjustments which might shift the balance.

- 4.11 Patent agreements are not exempt from the UK law on restrictive trade practices, anti-competitive practices and abuse of monopoly power:
 - i. The Restrictive Practices Court can find that an agreement is contrary to the public interest and order that it should not be implemented.
 - ii. When the Monopolies and Mergers Commission (MMC) finds abuse of a monopoly which involves a patent, the Secretary of State may compel an alteration in the practice by order.
 - iii. Following on from an MMC Inquiry, the Secretary of State may request the Comptroller to provide "relief" from the abuse through the patent. This can take the form of an order cancelling or modifying restrictive conditions in patent licences or declaring licences under the patent to be available as of right.

However the patent terms and conditions cannot be amended except by the Comptroller. Thus the legal instruments by which abuse of the property right is curbed are found in legislation relating to property rights, but they can be activated by the use of competition law.

- 4.12 But these remedies, provided by the law on competition, have been little used in the field of intellectual property. There have been only one or two orders prohibiting patent agreements or demanding price reductions and the Secretary of State has never requested the Comptroller to amend the terms or conditions of a patent following a MMC investigation. The reasons for the apparent ineffectiveness of these remedies go beyond the remit of this report and into the field of competition policy in general. However, in these circumstances it becomes all the more important that those remedies within the Comptroller's own power and which companies themselves can activate, can be made to work. The most significant of these, especially for the small company, must be the right to grant a compulsory licence.
- 4.13 Three years after the grant of a patent any third party can apply to the Comptroller General for a compulsory licence on the following grounds:
 - i.inadequate working in the UK;
 - ii. the UK demand for products based on the invention is not being met on reasonable terms. This can cover monopolistic prices;
 - iii unreasonable obstruction, including outright refusal, of licensing negotiations.

The Comptroller General has the right to determine whether the applicant's case is valid and the terms of the licence, including the amount of the royalties. He may grant an exclusive compulsory licence (exclusive even of the patentee) or a sole compulsory licence (preventing the patentee granting other licences).

- 4.14 Despite these procedures for compulsory licences, the use made of them also seems to be minimal. From 1977 to the present there have been 12 applications: one has been granted, six have been withdrawn and five are pending. We doubt that the procedures are such that the mere threat of invoking them has enabled small companies to get satisfactory deals in most cases.
- 4.15 The main reasons for this situation would seem to be:
 - i.three years later the market has often moved on and a compulsory licence will not help;
 - ii. the difficulty of proving to the Comptroller that the patentee is not taking some (however nominal) steps to work the patent to a reasonable extent:
 - iii. the potential applicant is reluctant to apply for a compulsory licence because he knows that the unwilling granting of a licence is unlikely to be accompanied by the know how essential for the working of the invention. The published patent might not, in practice, give enough information to duplicate the invention.
 - iv. unless the compulsory licence is exclusive, the new licensee can find he is being undercut on the market by the patentee or another licensee;
 - v. The Comptroller General has discretion over the granting of compulsory licences and it is widely believed that he is extremely wary about granting them;
- 4.16 We believe it would be worthwhile to try to get the system for compulsory licences to work better. But if the rules were changed to allow for compulsory licences to be granted automatically for non-working, that would tend to drive the inventor to increased dependence on secrecy rather than on patenting. The result would be worse than the existing situation. We have therefore looked at half-way house solutions.
- 4.17 In the US, in cases where anti-trust legislation has been invoked to reduce strong anti-competitive practices, an exclusive compulsory licence, accompanied by the transfer of specified know-how, can be awarded to a competitor as part of the redress. In the UK there is no provision for compelling the patentee to transfer know-how. We should consider making provision in the Patent Act for a more effective compulsory licence, including the transfer of know-how, in the event of anti-competitive abuse. We are aware that the big companies and multi-nationals would probably be hostile to any compulsory transfer of technology. But medium-sized and small businesses might support the measure.
- 4.18 The compulsory transfer of know-how might also be justified where licensing negotiations for unused patents are being unreasonably obstructed. Such obstruction can take the form of an outrageously high fee to the small licensee. This may occur because for the inventor, perhaps a big research establishment, the prospective licensing deal represents a small net present value in return for considerable work in defining and negotiating the relevant know-how. For the licensee, however, an effective compulsory licence, including know-how, could make all the difference for him in developing a new

product in a limited market provided that the patentee's licensing fee is not too severe a burden. But we recognise that before accepting the granting of such a licence the definition of what constitutes unreasonable obstruction would need to be refined. It might be fair to allow a patentee to withold the information which would enable a competitor to operate on the same market. But if the potential licensee were active in another sector - say civilian products as opposed to defence products - or in another geographical area, then the grant of an effective compulsory licence with know-how might be justified.

- 4.19 Crown establishments should not be excluded from any changes in the law on compulsory licences. They employ over a quarter of the nation's R&D manpower and own a great deal of exploitable technology. The force of any changes would be weakened if they were excluded.
- 4.20 We do not expect or want our proposal to lead to any great increase in the number of compulsory licences granted. We hope that it will lead to a general belief that such licences are an effective instrument and that therefore patentees will be readier to grant satisfactory licences with the necessary know-how.
 - 4.21 <u>WE RECOMMEND</u> that consideration be given to creating more effective compulsory licences, including the transfer of know-how, in cases of anti-competitive or monopoly abuse and of unreasonable obstruction of licensing negotiations: if this is agreed, that Crown establishments should not be exempt from such provision.

EC views on Monopoly Abuse: Block Exemptions
4.22 On the European level, the Community's rules on competition owe much
to the influence of US anti-trust laws and are considerably tougher on anticompetitive practices and monopoly abuse than our Restrictive Practices and
Competition Acts. The Commission does not want property rights in patent
pools and exclusive licensing agreements to be used to distort the market or
to establish anti-competitive practices. In 1979 it issued a draft regulation,
not yet agreed, which proposes the exemption in block of certain patent
agreements from the competition rules in the Treaty of Rome (Article 85.1)
but specifies provisions in patent agreements between larger firms which
would not be allowed. Industry has complained that the approach discriminates against big companies trying to use Europe as their home market,
that a dynamic innovation policy requires the lack of restrictions on
contracts and that the absence of an agreed and acceptable regime discourages
new agreements.

- 4.23 There is some force in industry's arguments. But it is in the interests of small businesses, the consumers and the development of the international market generally that there should be some restrictions on cartels which cut out legitimate competition. We think it would be desirable to ask the Commissioners in charge of Competition, the Internal Market and Industry to make a concerted effort to break the log jam. A scheme which allowed intervention in cases of anti-competitive practices but did not require the registration of all licensing agreements might be possible: after all the UK provides for such a regime.
 - 4.24 <u>WE RECOMMEND</u> that the UK take the initiative in requesting the Commission to come forward with practicable proposals for reconciling measures to deter anti-competitive abuse in patent agreements with the legitimate interests of industrialists.

Paris Convention: Compulsory Licences

4.25 In the International Convention for the Protection of Industrial Property (the Paris Convention described in Annex A) there are limits on when a country can grant a compulsory licence if a foreign owned patent is not being worked in its territory. Patents are worked less in developing countries if only because of the comparative lack of technology and industrial capacity there. At the same time very few compulsory licences are applied for and granted, no doubt for many of the same reasons as obtain in the UK (paragraph 4.13 above). It is not therefore surprising that the most contentious discussions in the Convention's diplomatic sessions have been over the developing countries' attempts to get the developed countries to accept revisions to make it easier to grant sole or exclusive compulsory licences (see paragraph 4.14 above). But the industrialised world's interests are in maintaining a strong international system which does not undermine the commercial possibilities for its industrial patentees. This should also be in the interests of the developing countries who, unless they offer acceptable terms, will forfeit investment from abroad.

- 4.26 In the latest negotiations for a compulsory exclusive licensing regime, it took some time, even for our industrialists, to realise that the developing countries were bargaining for something additional to technology transfer through local working. They wanted to be able to cut out the original patent holder as a monopoly importer and to license an alternative monopoly importer, probably of a cheap generic product. Extension of such a practice would be damaging to UK exporters.
- 4.27 If there were a real threat to the continued existence of the Paris Convention as the generally accepted framework for international trade in intellectual property, that could be even more damaging to UK exporters. In the recent negotiations in Nairobi it was feared by some delegations, including the UK, that unless the developed world made a major concession on compulsory exclusive licences, the developing countries might reject the whole Convention. But our enquiries, even of UNCTAD, suggest there was never a real possibility of wholesale defection by developing countries since their interests would also be gravely damaged. The implication is that we could have negotiated more toughly then. The situation has been partially recovered by a compromise allowing after all reasonable scope for the original patent holder.
 - 4.28 <u>WE RECOMMEND</u> that before and during any further negotiations of the Paris Convention there should be a careful analysis both of the industrial interests at stake in the UK and of the strength of the negotiating hand of the developing countries.

Employee Inventors

4.29 Whether or not there is exploitation of an invention by the company which owns it, the inventor himself may be the best promoter of his own invention. In the UK the employee has no right to take title in an invention and the employer has no obligation to protect the invention even if he exploits it. The law only states that the employee should be rewarded if one of his inventions is exploited at significant profit by the employer. In Germany, if the employer does not take up the rights in the invention within four months, the employee is free to take title in it and exploit it. If the employer does exploit the invention, he has to reward the employee according to a defined scale and has either to take legal protection for the invention or pay compensation to the employee.

- 4.30 We believe that we should strengthen the rights of inventors along the German lines. We accept that this might generate some problems:
 - the individual inventor might isolate himself from the research team to avoid sharing any reward or property rights entitlement;
 - resentment could build up between product development staff and pure research staff and between all technologists and other company staff;
 - the company may feel forced to embark on fruitless work on inventions in order to avoid yielding title to the employee.

On the other hand, we have to accept that while our R&D base is broadly comparable with our main trading competitors, we exploit it less well. We cannot afford to neglect a chance to encourage individual commercially-oriented enterprise in both the private and public sectors because this will cause difficulties to the R&D manager.

4.31 WE RECOMMEND that employee inventors be given rights to take title in their unexploited inventions.

CHAPTER FIVE

AWARENESS, ACCESSIBILITY AND USE OF INTELLECTUAL PROPERTY

5.1 In the preceding two Chapters, we have made recommendations for changing the system of intellectual property rights so that contribution to innovation may be enhanced. But little will be gained unless the system is so organized that those who are able to make use of it in an economically valuable way are encouraged to do so.

Awareness

- 5.2 The Government devotes considerable resources to encouraging innovation generally. This contrasts with the lack of priority given to intellectual property issues.
- 5.3 The DTI and MAFF, encourage innovation by supporting information services, free consultancies, technology transfer schemes, and awareness programmes. They are marketed with professional advice; advertisements in national newspapers and trade journals are used extensively. Considerable effort is made to smplify the accessibility of the schemes and the entry requirements, and to reduce the form filling and time involved in government decision making. Regional offices, brokers and attractive publications are used. Competitions and other projects are directed at school children. Moreover, the Government invests large resources and devotes imaginative marketing to increasing the quality of industrial and commercial training. This is an investment in one aspect of the nation's human capital; the inventiveness of people and their ability to exploit the ideas of others are an equally important part of the same resource but one which has been ignored.
- 5.4 The comparison with intellectual property is stark. The procedures for receiving and defending a patent are still perceived by users to be cumbersome and slow. The offices are old and with poor facilities. Official pamphlets giving advice on patents, trademarks and registered designs tend to be densely written and full of jargon, although there have been recent improvements. Where initiatives to encourage inventions are taken they can miss the point; national competitions for innovation too often focus on, and appear to prize, the clever invention and not its exploitation. In the private sector, the Patent Agents have developed a monopoly of advice which demonstrates some of the worst aspects of professional restrictive practices. Entry to the profession is limited; costs are kept high; the emphasis is on defensive work rather than exploitation. Overall the impression given is of an arcane world rather than that of modern technological Britain.
- 5.5 As a result of this attitude there are many examples of a lack of awareness of the most basic benefits to individuals and business of intellectual property protection:
 - academics freely exchange information, nationally and internationally, and too rarely talk to prospective commercial partners or take protection first. Exploitation is too often felt to be the business of someone else such as the BTG. As a result, some major British developments have been exposed, without protection, and have in effect become a free gift to overseas business. Monoclonal antibodies, a key development in biotechnology, is one recent example;

- staff in government research establishments too often judge the research outcome on its utility for the problem in hand and not on its wider exploitability; there is no individual responsibility for seeking commercial outlets;
- school children are encouraged by teachers to copy computer software with no thought to copyright. They are also given little encouragement to document their own software and see it as a potentially exploitable product. School children can produce as original good ideas as adults.
- 5.6 Businesses are generally more astute but in <u>small business</u> the protection of intellectual property is too often seen as something for larger companies; sometimes with disastrous results, for example, if the market, once established, is then swamped by an unrestrained copyist. Any procedure that needs money and the time of senior management is proportionately more of a burden for a small business than a large one. Hence patents are regarded as expensive and low on the priority list when struggling to bring a product to the market. Yet small businesses may in fact most need protection for their intellectual property. It may be the only market power that they have, whereas a larger company may have greater manufacturing amd financial capability and an established position in the market.
- of intellectual property in different ways. The USA has decided that the best way to encourage the exploitation of publicly funded research in the universities, for example, is to give them the direct responsibility. There is no state-funded agency such as the BTG. The universities are free to take title in intellectual property and have a duty to seek commercialisation by whatever means they wish and with no levy on profits back to Government. In West Germany, as described in paragraph 4.29 above, employee inventors have rights to take over the exploitation of their ideas if unused by the employer. There are petty patents available which are particularly helpful to individuals and to small business. The Japanese encourage innovation from an early age. "Junior Inventors Clubs" are formed for school children. Companies parade lists of patents as demonstrations of technological capability. Employee suggestions for innovation are taken seriously and patented wherever possible, even if the chances of commercialisation are remote, in order not to dampen enthusiasm.
 - 5.8 Action by Government to improve the accessibility and awareness of the intellectual property system must concentrate on two key features. First the Government must change its own habits. This means that the Patent Office should be encouraged to engage in a vigorous marketing campaign of the virtues of the system and how to use it. The skills brought to selling many of the Manpower Services Commission's programmes show what can be done. A Rayner review of the Patent Office in 1980 made two recommendations germane to this objective; the search for new, modern buildings should be intensified, and information technology should be increasingly used. We hope both of these can be implemented. Our later proposals for a free standing Statutory office should help remove resource constraints. In short the Government should not underestimate the importance of presentation in getting people to use intellectual property.
 - 5.9 Government should bear in mind the relevance of intellectual property when reviewing and amending its programmes for aid to industry. The objective should be to ensure that advice on the methods of protecting or exploiting intellectual property (and, where appropriate, grants to defray the expense of protection) are no less available than advice and assistance for

equivalent investment. The overall cost, including patent agents' fees, for a straight forward (uncontested) UK patent is approximately £2,000. A bundle of patents acquired through the European Patent Office costs three times this. Reasonable world-wide coverage comes to about £20,000.

5.10 WE RECOMMEND -

- i. that the Patent Office should undertake an imaginative marketing exercise designed to sell the importance of intellectual property.
- ii. that DTI should systematically review its aid and advice programmes with a view to increasing the support given to those who use the intellectual property system.

The professional monopoly

- 5.11 Access to intellectual property rights is strongly influenced by the professionalism of patent agents and lawyers. Both groups have restrictive practices which raise the cost of the system to the user. On many occasions it is doubtless necessary and appropriate for those seeking to use the system to engage professional assistance. But, as with the conveyancing monopoly of solicitors, there are strong arguments for and against the Government encouraging a monopoly of costly advice through statute.
- 5.12 Our proposals in Chapters 3 and 4 are designed to provide a simpler system of patent protection (two-tier patents) and resolution of disputes (right of re-examination). In normal circumstances these new mechanisms should reduce the need for professional assistance. But it may be necessary to go further. The statutory monopoly given to the patent agents goes against the grain of encouraging wider access to property rights and price flexibility. We believe the Government should review the case for the monopoly.
 - 5.13 WE RECOMMEND -
 - i. that policy on intellectual property rights should aim to reduce the need for reliance on professional advice.
 - ii. that the case for the statutory monopoly of patents agents should be reviewed.

A national database

5.14 The report has so far concentrated very largely on the position of inventors and those who directly exploit inventions through licensing agreements. But the system can in addition be used as a database for market and commercial intelligence. Patent and registered design applications are always published by the Patent Office and provide a detailed insight into who is developing what products, in collaboration with whom, when and where. Much of the information in patent applications particularly relating to new technologies, is not published anywhere else. Studies show that firms using the patents database in this way believe that they derive substantial benefits. The subject classification of patents is one that is easily accessible to these users and the task of going through patent applications to pull out relevant information does not require a highly specialised patent agent: either a member of the research department of a firm or the use of an online commercial service is all that is necessary.

- 5.15 This national database is not well used. Governmental industrial advice and assistance does not stress its potential. The Patents Office is not expected to make a major effort in this area; nor does it have the resources to do so. Inquiries and sales of information at the Patent Office have remained static or declined in recent years. On the other hand, commercial firms now provide online services of patent specifications, and some consultancy services advise on their relevance to the particular market conditions of clients. The Rayner Report recommended that the Patent Office's role should be to organise itself so that private consultants could offer services based on the information it held. We agree.
- 5.16 The Patents Information Network of the Science Reference Library can be developed so as to provide a useful source of market intelligence to local businessmen. When public and private initiatives come together the results can be very successful. We were particularly impressed by the co-operation in Newcastle between energetic consultants and the local patent depositary library. The publicity material is imaginative and has led to good use of the library service by industry.
 - 5.17 WE RECOMMEND that part of the awareness campaign recommended in 5.10.i. should be directed to making patents and registered designs as useful as possible as a national database. Particular attention should be given to cooperation by the Patent Office with private consultancies and the use of the local network of patent depository libraries.

International Use

5.18 For some users of intellectual property, an awareness of its potential within the United Kingdom market will be sufficient. But there is also an international system of intellectual property within which exporting companies have to operate. There is a need both to attempt to mould that system in our interests when possible, and to make our exporting industrialists aware of its potential and pitfalls. An example of what can happen when the institutional arrangements for making policy are not close enough to industry's needs is provided by the recent renegotiation of the Paris Convention described in 4.20.

Europe and the Community Patent Convention

5.19 Policy on European issues should be based on developing the EC as the home market for British goods. An important development would be the ratification of a Community Patent Convention which would take further the advantages already available through the European Patent Convention.

5.20 The European Patent Convention (see Annex A) allows the European Patent Office to undertake one central search and examination of a patent application such that a bundle of up to 10 separate national patents can then be awarded. After a short period to allow central oppositions, each national patent is then subject to the various laws of the individual nations. This can make for complexity and cost. Infringements, amendments or bids for revocation, for example, must be fought out under each of the separate and different legal systems. The Community Patent Convention, on the other hand, would provide for a single patent valid throughout the Community, awarded by the European Patent Office. The Convention was concluded in 1973 and signed by all the nine member states at the time, but problems of ratification and implementation remain.

5.21 The arguments in favour of implementation of the Convention - improving the internal market, promoting innovation, reducing the costs and simplifying procedures for application and redress - seem strong. The UK has one well-founded objection - relating to the role of national courts - but discussions to resolve this through a central specialist court are taking place. If one or two member states do not ratify the Convention in the near future, there may be case for going ahead without them. The Government does not appear to have given a very high priority to resolving the remaining objections to implementation.

5.22 WE RECOMMEND

- i. that when developing policy on international aspects of intellectual property the views of British industry should be properly taken into account.
- ii. that, because of the benefits to industry, the Government should press for early implementation of the Community Patent Convention.

Whitehall Liaison

5.23 Most of the concerns of this chapter - such as the failure to use the national database, the lack of thrust in international negotiations and the extent to which intellectual property is ignored in schemes of assistance and advice - imply that awareness and interdepartmental consultation in Whitehall on intellectual property is inadequate. There is a clear need for a forum where departmental views could be brought together.

5.24 WE RECOMMEND the establishment of a Whitehall Liaison Group on intellectual property, chaired by DTI.

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

6.1 The preceding chapters have recommended a number of changes to the intellectual property rights system. Recommendations are addressed to the rights that are available, to the way they are used and the way abuse can be curbed, and to increasing awareness of their value. We have argued that such changes would, if well promoted, help to improve access to property rights and to induce more commercial awareness amongst those generating new ideas. But there are two issues concerning implementation that must now be considered: public sector resources and legislation.

Resources and a Statutory Body

- 6.2 To implement many of the advocated changes would involve extra resources, particularly staff, within the Patent Office. For example it has been estimated that 40 extra staff would be needed to cope with service marks. The increase in the number of civil servants, even though they could be paid for completely by fees, would be unwelcome to Government. It is a potential hurdle to otherwise desirable progress.
- 6.3 A way round must be found. Protection of intellectual property is an important step in the commercialisation of ideas. Industry cannot provide that protection for itself. The conferment of temporary monopolies and their regulation is a function of Government or its own agencies, but we believe that there is a better solution than simply increasing the number of Department of Trade and Industry staff.
- 6.4 The Patent Office should become a separate statutory body. There already exist such bodies as the Civil Aviation Authority, which grant monopoly rights and regulate them. Like them, the Patent Office should be free to provide the level of service that industry wants from it and to determine its resources accordingly. It should be financially self supporting from fees income. It should be free to hold money against investment programmes such as in computerised information handling. Not only would such independence remove the total activity, with its increase, from the Exchequer, it would allow the Patent Office to be less shackled in other areas. It could develop its role as an active advocate for the value of the intellectual property system as well as providing a specific service.
- Patent Office. The Department of Trade and Industry should continue to have a small policy group within it as a focus for discussion of intellectual property matters within Government and as the sponsor of the new statutory body. That group should be responsible for formulating the UK line on domestic and overseas issues and for assembling delegations to overseas conferences. They would lean heavily on the support and services of the Patent Office, but the Department would have the responsibility for the Government line and for consulting industry. The policy group would provide the Secretariat for the Whitehall Liaison Group (recommended in paragraph 5.21) which would bring the views of other Departments into the discussion of intellectual property issues.

- 6.6 The new statutory body should itself take advice from its customers on the services which it offers, much as the Comptroller of the Patent Office currently does with the two standing advisory committees (see Annex A). However the Secretary of State should determine their membership and should ensure that the interests of innovative business, small as well as large, are adequately represented. Hitherto, patent agents and other professionals have dominated the advisory mechanisms.
 - 6.7 WE RECOMMEND that the Patent Office should become a separate statutory body.

An Intellectual Property and Innovation Bill

- 6.8 Establishing the Patent Office as a statutory body would need primary legislation, as would many of the other recommendations. The strength of the case for some of them, such as for service marks, has already been established within Government independently of this report. The demand for some of the other changes has not yet been acknowledged in the same way. Each of the individual measures are desirable but, taken alone, few could probably command a high priority for legislative time. However taken together we believe that they would be the basis of a major statement of Government policy on innovation and commercial awareness in this country.
- 6.9 The theme of the statement would be that those with ideas should be encouraged to take responsibility for starting the exploitation of them, rather than leaving it to third parties. For example, employee inventors should have the ability to take rights on their unexploited ideas; Registered Inventions should allow a more accessible form of protection that might be particularly helpful to small businesses; improvements to the law on compulsory licences should lead to more voluntary licences on under-utilised ideas. The stimulation of such a commercially aware culture in the UK is intimately tied up with an awareness of the value of intellectual property and its conversion into a tradeable commodity by adequate definition and protection. Government policy making must take this into account and give adequate priority to it. A new bill based on the measures we propose could be at the centre of a new approach.
 - 6.10 WE RECOMMEND that the Government consider an "Intellectual Property and Innovation Bill" to deal with the new measures and to form the basis of a major statement of policy.

List of recommendations

- 6.11 The Patent Office: we recommend that:
 - 1. the Patent Office should become a separate statutory body (6.7);
 - 2. the Patent Office should undertake an imaginative marketing exercise designed to sell the importance of intellectual property (5.10.i);
 - 3. part of the awareness campaign recommended above should be directed to making patents and registered designs as useful as possible as a national database. Particular attention should be given to cooperation by the Patent Office with private consultancies and the use of the local network of patent depository libraries (5.17).
- 6.12 Role of Government: we recommend that:
 - 4. a Whitehall Liaison Group on intellectual property, chaired by the DTI, be established (5.24);

- 5. the DTI should systematically review its aid and advice programmes with a view to increasing the support given to users of the intellectual property system (5.0.ii);
- 6. when developing policy on international aspects of intellectual property, the views of British industry should be properly taken into account (5.22.i);
- 7. because of the benefits to industry, the Government should press for early implementation of the Community Patent Convention (5.22.ii);
- 8. the UK should take the initiative in requesting the Commission to come forward with practicable proposals for reconciling measures to deter anti-competitive abuse in patent agreements with the legitimate interests of industrialists (4.24);
- 9. before and during any further negotiations of the Paris Convention there should be a careful analysis both of the industrial interests at stake in the UK and of the strength of the negotiating hand of the developing countries (4.28).
- 6.13 New and amended intellectual property rights: we recommend that:
 - 10. registration of trade marks should be extended to services (3.6);
 - 11. a petty patent along the lines of the registered invention scheme (described in Annex B) should be adopted (3.14);
 - 12. there should be further examination of the feasibility, particularly cost, of replacing design copyright with registered designs as the intellectual property right available for functional articles manufactured in quantity (3.20).
- 6.14 Use and abuse of rights: we recommend that:
 - 13. an ex parte right of examination be introduced (4.9);
 - 14. consideration be given to creating more effective compulsory licences, including the transfer of know-how, in cases of anti-competitive or monopoly abuse and of unreasonable obstruction of licensing negotiations: and if this is agreed, that Crown establishments should not be exempt from such provision (4.21);
 - 15. employee inventors be given rights to take title in their unexploited inventions (4.31);
 - 16. policy on intellectual property rights should aim to reduce the need for reliance on professional advice (5.13.i);
 - 17. the case for the statutory monopoly of patent agents be reviewed (5.13.ii).
- 6.15 Finally, to pull the threads together, we recommend an "Intellectual Property and Innovation Bill" to deal with the new measures and to form the basis of a major statement of policy (6.10).

INTELLECTUAL PROPERTY RIGHTS - A MAP OF THE SYSTEM

- A.1 Intellectual property rights are the legal rights which result from intellectual activity in industrial, scientific, literary or artistic fields. This study is principally concerned with industrial property: that is the protection of inventions, trade marks and industrial designs which are capable of commercial exploitation and the repression of unfair competition. The protection of the first three have in common the granting of certain monopoly rights allied to disclosure. The repression of unfair competition is directed against acts of competition contrary to honest practices in industrial or commercial matters.
- A.2 There are no generally internationally accepted definitions of the various forms of industrial property but the following descriptions give their more common characteristics:
 - i. Patents A patentable invention is a new and non-obvious industrially applicable idea. A patent is the document issued by a Government office, which describes the invention and gives the patentee a right to take legal action against unauthorised use of the invention, called "infringement", for a number of years.
 - ii. Trade Marks A trade mark is a sign used by a manufacturer or trader to distinguish his goods from similar goods of other firms. A service mark (which does not exist in the UK) performs the same function for services eg for banks and laundries. Registration of a trade mark establishes a right to take action against infringement of that mark or use of one similar in connection with goods or services such that it would lead to confusion in the minds of the public. An unregistered trade mark can, in certain circumstances, be protected by a common law action for "passing-off".
 - iii. Registered Designs These establish rights on the ornamental visual aspects, ie other than purely functional aspects, of an article. To gain protection, the design must be novel.
 - iv. Copyright copyright is a form of intellectual property, that exists automatically in original literary, artistic or dramatic works, and gives protection against unlicensed use. Copyright started with literary work, but in this century it has been extended to deal with neighbouring rights, especially those of performers, effected by reproduction through modern technology. Of commercial importance has been the growth of industrial Design Copyright for three-dimensional articles, such as motor vehicle spare parts, which result from drawings and which may be purely functional.
 - v. Plant Breeder's Rights A protectable plant variety is one which is clearly distinguishable from any other varieties, which has not yet been commercialised, which is sufficiently homogenous and stable. The breeder's protection extends only to the production of reproductive material for the purposes of commercial marketing (not to the use of the protected variety as an initial source of creating other varieties) and to the use of the registered name for selling any other variety within the same class.

Award of Rights

A.3 Patent applications are made to the Patent Office. Publication of the patent specification (which is a description of the invention of sufficient detail that others skilled in the art could replicated it) automatically follows 18 months after the initial filing. There is first a preliminary examination and search, the result of which is published with the specification, and then a substantive examination to ensure that the invention involves a new non-obvious inventive step (ie which is not part of the published or freely known state of the art) and has an industrial or agricultural application. The period of exclusive right granted to the patentee, for manufacturing and using the invention, is up to 20 years, if the patentee pays the appropriate renewal fees. There are rules according to which the Comptroller General can order compulsory licensing if the patent has not been worked after a period of time. At any time a third party can apply, to the Patent Office or to a special Patents Court, for revocation of the patent, usually on the grounds that the invention was not new or was obvious.

- A.4 For a trade mark, registration does not take place until the Patent Office (Trade Marks Registry) has carried out a thorough examination as to its suitability to ensure that it is distinctive, is not deceptive, and is free from conflict from registered trade marks of others. Opportunity is given for third parties to oppose registration. A trade mark registration can be maintained indefinitely by payment of renewal fees. The UK system is more thorough than many other countries which simply record registration.
- A.5 For registration of a <u>design</u>, the application is examined for non-functional aspects, searches are made through previous registrations, the design is then registered and made available for public inspection. Protection takes effect from the date of application and may last, if renewal is applied for at five-yearly intervals, for a maximum of 15 years.
- A.6 Copyright and so-called Neighbouring Rights such as Performing Rights are automatic and therefore do not need to be conferred or registered in anyway. In order to give notice that copyright protection is claimed, the practice of annotating a document, design, or whatever, with the name of the author, or owner, the date and an international copyright symbol has grown up. Copyright lasts for the period of the author's remaining lifetime plus 50 years. Design Copyright in three-dimensional articles is however restricted to 15 years, ie as with registered designs.
- A.7 The controller of the <u>Plant Variety</u> Rights Officed under MAFF grants protection, varying between 15 and 20 years, after establishing whether prior commercialisation has taken place and after official testing of the distinctness, homogeneity and stability of the product. The controller carries out regular tests thereafter and can revoke the rights should the variety lose its distinctiveness. Several Western European countries provide for similar testing and we have collaborative arrangements with them. The USA, and some other countries, grant Plant Patents, but the US does not provide for tests on a regular basis.

Enforcement

A.8 The normal method of protecting intellectual property rights in the courts is by civil action for infringement of the right. All the normal remedies are available; thus the owner can elect to sue for damages (discussed in more detail below) and seek an injunction to prohibit continued infringement. Injunctions are at the discretion of the court, but the effect of recent cases is to make it easier than formerly for interlocutory injunctions to be granted, on the balance of convenience, especially if substantial damage to the plaintiff is likely to take place and the defendent is unlikely to be able to recompense by way of damages.

Further changes to the procedure for protecting rights, especially against Copyright piracy and counterfeit goods, include the development of Anton Piller orders, now granted under the Supreme Court Act 1981. They allow a plaintiff to secure an exparte order to search for and take away copies of the protected item and other information. The orders operate before trial; on judgement it is possible for the court to grant an order to the plaintiff ordering the defendant to deliver up copies of the infringing articles, or destroy them.

A.9 In addition to remedies through actions for infringement or for breach of contract (where, for example, the owner of a right complains that a licensee has gone outside the terms of his license) some of the economic torts, in particular passing off, may be pressed into service. All these remedies depend on the individual right owner deciding to initiate proceedings.

A.10 Some protection of the rights is undertaken by public agencies. Customs and Excise Officers, if called upon, have special responsibilities in copyright, and trading standards officers have a role in protecting rights if their abuse is leading to illegal trading. The criminal law has a historical role in copyright, preserved by the 1956 Act. In practice there are few prosecutions for breach of copyright outside the special circumstances of piracy in the entertainment world. Although there is room for considering whether the criminal jurisdiction should be extended - perhaps by reducing the mental element required for certain kinds of illegality from knowledge to recklessness - enforcement of intellectual property rights must mainly depend on action in the civil courts.

International Aspects

A.11 The laws relating to intellectual property are generally concerned only with acts accomplished or committed in the country itself. There are two existing exceptions: The European Patent Convention confers a bundle of up to 10 national patents in the contracting states, which the applicant designates in a single patent application which undergoes a single search and examination procedure. A patent granted by the African Intellectual Property Organisation has the same kind of effect. The European Community Patent Convention, signed but not yet in force, would go one step further than the European Patent Convention by granting one European Patent valid throughout the area of the contracting states.

A.12 The European Patent Office (EPO), in existence since 1978 with its headquarters in Munich, is primarily concerned with processing applications for patents under the European Patent Convention. It is being used increasingly. When applications are filed, the EPO makes a search of the relevant state of the art and a report, which is published, is sent to the applicant to enable him assess the prospect of obtaining grant of a patent. If the applicant decides to proceed, the EPO carries out the substantive examination for novelty, inventive step and industrial application of the invention. If the examining division of the EPO considers the invention to be patentable it will decide to grant the European Patent (which comprises a bundle of national patents in the member countries), valid for 20 years from the date of application. The grant of the patent is notified to the public and a patent specification is published. Third parties may opposed the grant of a patent within 9 months after grant. Since this opposition stage came into operation in 1981 the percentage of European patents opposed has been surprisingly low but is expected to increase. Appeals against decisions of the various divisions of the EPO can be made to an impartial Board of Appeal. After the 9 months opposition period, all further actions including renewals, have to be carried out with the individual, national Patent Offices.

A.13 More widely, the general framework for international co-operation set by the 1883 Paris Convention drawn up to guarantee reciprocal possibilities for protection in the convention countries. Among the basic provisions are:

- i. the same protection for nationals of other contracting states as it grants to its own nationals;
- ii. the right of priority. Any person who has applied for protection in one of the contracting states enjoys a right or priority for twelve months for claiming similar rights in other countries.
- iii. compulsory licensing and revocation. A compulsory licence (a licence not given by the owner of the patent but by the public authority of the state concerned) may only be given pursuant to an application filed after 3 or 4 years of failure to work the patented invention in the state in the absence of legitimate reasons for inaction. This represents a careful balance and is the most contentious part of the Convention.

A.14 Twelve special agreements have been concluded so far under the aegis of the Paris Union which generally fill out that first agreement. The one of most importance is probably the 1970 Patent Co-operation Treaty which provides for a system of international search and preliminary examination which facilitates the national examination process. The World Information Property Organisation (WIPO) is the UN specialised agency responsible for ensuring administrative co-operation among the various unions of states founded on the multilateral Treaties for dealing with the legal and administrative aspects of intellectual property. The UK is also party to the International Convention for the Protection of new Varieties of Plants, concluded in 1961 and last revised in 1978.

Government Advisory Bodies

A.15 The Department of Trade has two Standing Advisory Committes, to deal with patents and trade marks respectively. The membership is formally settled by the Department but it has agreed with certain organisations that they will nominate members. The Chairman of each Committee is however selected by the Comptroller of the Patent Office. For the Standing Advisory Committee on Trade Marks, the represented organisations are:

Chartered Institute of Patent Agents*

Law Society*

General Council of the Bar*

Institute of Trade Marks Agents

Incorporated Society of British Advertisers/Committee of Marketing

Organisations

International Chamber of Commerce (British Section)*

International Association for the Protection of Industrial Property*

Association of British Chambers of Commerce*

Trades Union Congress*

National Consumer Protection Council/Consumers Association/National Consumer Council

Trade Marks, Patents and Designs Federation*

Confederation of British Industry*

For the Standing Advisory Committee on Patents, the organisations marked with an asterisk above nominate representatives, together with:

Institute of Patentees and Inventors.

Previous Reviews

A.16 The most recent reviews of the relevant legislation were the Banks report (1970) on patents which lead to the 1977 Act, the Mathys report (1974) on trademarks, which did not lead to a published Government response, and the Whitford report (1977) on copyright which has lead to a consultative paper but no white paper yet. There was a Rayner study of the Patent Office in 1980.

OUTLINE FOR CONSIDERATION FOR REGISTERED INVENTIONS

- B.1 Inventions to be protected through Registration shall be in the same category as is provided for patentable inventions under the Patents Act.
- B.2 The formal provisions for applications for Registration, claim to priority, filing procedure and publication shall be the same as for patent applications and the official fee on a definite application for Registration shall be equivalent to that for a patent application with claims but not including an official search.
- B.3 A patent application may be used as a priority basis for a REGISTERED INVENTION, and vice versa. In practice there need be no distinction initially between a patent application and a REGISTERED INVENTION application. An applicant may elect, at the end of one year from filing, to proceed with a patent application or a definite REGISTERED INVENTION application.
- B.4 Provided that a patent application has not been rejected for lack of novelty, as distinct from obviousness, it may at any time up to grant be converted to a REGISTERED INVENTION and any official search report on the patent application shall be made of record on the REGISTERED INVENTION.
- B.5 Each application shall be registered without examination (apart from compliance with the requirements for documentation and information) but as an essential preliminary to any action under the Registration or at third-party request the Registration shall be formally examined and confirmed or removed from the Register. A decision for removal shall be subject to appeal to the Patent Court.
- B.6 At any time during the existence of a Registration anyone may file or request and pay for an official search report which shall be available for public inspection.
- B.7 The term of a REGISTERED INVENTION shall be initially 5 years from definite application, or from the filing date of a converted patent application, with renewal on payment of a fee for a further 5 years.
- B.8 The owner of a REGISTERED INVENTION shall have and be subject to the same rights and obligations as a patentee of a patented invention but exercisable only after the following stepts:
 - a. the Registration shall be formally examined and confirmed;
 - b. there shall be on file at the Patent Office a novelty search report by an officially recognised search authority;
 - c. an intending Plaintiff shall send to any intended Defendant written notice at least one month before initiating any action and such notice shall give particulars of steps a and b and an opportunity for the notified party to settle on terms which, in default of agreement, shall be determined by the Comptroller.

- $B.9\,$ In any action for infringement or revocation of a REGISTERED INVENTION it shall be a defence or a ground for revocation that the invention:
 - a. is not novel; or
 - b. does not involve any inventive step having regard to the state of the art at the filing date of the invention.

RIGHT OF RE-EXAMINATION

- C.1 The law on re-examination of patents in the USA (Public Law 96-517, December 1980) includes the following provisions:
 - i. Any person at any time after grant of a patent can submit evidence of prior art to the Commissioner for Patents.
 - ii. Any person at any time can request a re-examination of a patent on the basis of a submission on prior art. A copy of the request is sent to the patentee (if other than the person making the request) but he has no right to petition against the re-examination.
 - iii. Within three months, and without necessarily taking any further evidence, the Commissioner decides whether a substantial question of patentability has been raised. A copy of his determination goes onto the patent file. Copies are sent to the patentee and person requesting the reexamination.
 - iv. If the determines that \underline{no} substantial question of patentability is raised, the decision is final and cannot be appealed against (though the question may still form part of a subsequent court action). This is equivalent to upholding the patent without further ado.
 - v. If the determines that there \underline{is} a substantial question, then the patentee is given two months to comment and/or amend the patent specification and claims. The person requesting re-examination is notified of the comments and he has two months in which to comment on them. The patentee is notified.
 - vi. The Patent and Trademark Office re-examines the patent using the normal provisions for an original examination, in which the patentee can amend (but not extend) his patent and claims.
 - vii. The normal appeals mechanisms are available to the patentee.
 - viii. Finally, the Commissioner issues a certificate cancelling, amending, or upholding the patent.
- C.2 Thus, though the grounds of a request for re-examination are restricted to prior art (and the origins of the right are to compensate for the absence, in US law, of suitable opposition rights before grant of a patent), the proceedures have the benefit of a fixed timetable, and limited reference to the parties involved. There is only one round of comment. Neither the person requesting re-examination nor the patentee are required to answer the points made by the other. Once the time for this one round has elapsed no further evidence can be submitted and the proceeding is ex parte.

- C.3 The equivalent provisions in the UK Patent Act (1977) include the following:
 - i. In the period between publication and grant of a patent, any person can submit evidence on patentability. The patentee can amend (but not extend) his patent and claims.
 - ii. At any time after grant, the patentee can amend (but not extend) his patent and claims. A third party can register opposition to such an amendment. If validity is already at issue before a court, its permission is first required.
 - iii. After grant, there are no proceedings available for simply seeking a declaration of validity on the basis of hitherto unrevealed prior art. However an appliction for revocation can be made by a third party at any time (provided that the issues are not already pending before a court).
 - iv. Applications for revocation can only be made on the grounds of:
 - the invention is not patentable;
 - the patentee is not the only person entitled to register the invention;
 - the final specification extends beyond the original application;
 - an amendment should not have been allowed.
 - v. If the Comptroller refuses an application for revocation, an appeal against that decision cannot be made without a court's leave.
 - vi. Once an application is being determined, the issue cannot go to court without the patentee's leave or unless the Comptroller judges that the court is better able to deal.
 - vii. The Comptroller determines the issue on evidence submitted to him, in documentory form, but on an unlimited timescale and with adversarial proceedings allowing each point to be answered.
 - viii. If the Comptroller finds only limited invalidity, revocation will still take place if the patent is not suitably amended by the patentee.
- C.4 The adversarial proceedings can be protracted. Professional (and expensive) representation is needed. The Comptroller's decision does not prevent a dispute over validity being taken to court and, because the first round of costs in having the issue heard before the Comptroller are approaching those of a court case, there is very little point in going to the Comptroller first and still running the risk of having to pay again for a court case. As a result, applications for revocation are rarely made.

ANNEX D

OTHER POTENTIAL PROBLEM AREAS

- D.1 The report has concentrated on the large-scale features of intellectual property rights (such as coverage, consistency, use and abuse) and has recommended changes that should make the rights better matched to the needs of innovators. However there are other, though more specific, areas where problems may be occurring, such as with computer software. By and large they are known to the professionals, such as patent agents and Patent Office staff, and specific adaption of the existing system could be made if felt warranted. But the Government, in the form of the Whitehall Liaison Group (paragraph 5.23), should ensure that the issues are debated with an adequate emphasis on the extent to which innovating British companies (and hence consumers) will benefit. We draw attention to three particular issues that should receive more attention:
 - i. coping with biotechnology;
 - ii. action against counterfeiting;
 - iii. variation in patent term.

New technologies - biotechnology

- D.2 The protection for micro-organisms initially caused problems for the patent system. Living organisms are difficult to isolate from nature and impossible to define adequately in a written specification. As a result, the disclosure necessary for patenting is carried out by depositing some of the actual oganism with approved culture collections, where third parties can examine and sample it. The European Patent Office does not allow unrestricted access to the sample in the period between first publication of an application and grant of a patent ("Rule 28"). There is a list of approved experts who are allowed to act on behalf of clients and examine the deposit but not carry away samples. If a patent applicationwere unsuccessful, the applicant would otherwise have completely given away his actual property (via the sample) rather than just a description of it (via a written specification). Once a patent is granted, direct access is allowed.
- D.3 The British Patent Office does not have the equivalent of Rule 28. There is unrestricted access after publication of the patent application. Companies involved in biotechnology have claimed that this is an over-legalistic attitude to the issue of disclosure and one which acts against the interests of British business.
- D.4 In the area of genetically manipulated plant varieties, there may be a problem just emerging. UK patents do not cover new plant varieties. Plant Breeders Rights (described in Annex A) regulate the trade in the means of propagation (eg seeds) but do not cover the products of plants. Thus flowers of a new variety can, for example, be imported freely into the UK even if the sale of the seed is restricted. This is a relatively weak form of protection but the industry seems content with it, at least as it applies to traditional growing methods and hybridisation. However new and much faster methods of developing plant varieties are becoming available through biotechnology. The plant products may be of industrial importance to the food, chemicals and pharmaceuticals sectors and there is the prospect that new industries can be founded on them.
- D.5 The issue is whether British investment in reseach an development would be encouraged by protection more akin to that available through patents. The USA patent law is less exclusive and does allow "plant patents".

Counterfeiting

D.6 The small bright ideas man in the UK is at a disadvantage against foreign counterfeiting. He finds, for example, that his idea is stolen by a Taiwanese manufacturer either acting on his own behalf or for a foreign company. He may have taken out a registered design or patent in the UK but he cannot afford to fight in the courts and does not have the clout to dissuade the infringer, even if he could trace him, by aggressive threats. The bigger company is more prepared to accept that counterfeiting is an unavoidable cost but in any case does have more resources to counter the overseas threat. However many good ideas seem to stem from the small man and unless some help is given, he will be discouraged. One such way might be a mutual insurance scheme with some Government backing.

Variation in patent term

D.7 It is not self-evident that the period of patent protection should be the same for all areas of invention. There are major differences in the scale of research and development needed for advance in difference subjects. The theoretical balance between the interests of the consumer and the producer could be set at a different level for some products by giving a shorter period of monopoly (as India does for food and medicines). Conversely for those products which are delayed from entering the market by lengthy Government regulatory procedures, (medicines again) the period of patent monopoly might be extended to compensate.

- D8. The most sustained case for a variable term is presented by pharmaceutical companies for patent term extension. They claim that regulatory procedures can halve the useful lifetime of a patent (ie after launch of a product into the market place). But a recent study by the US Congressional Office of Technology Assessment did not conclude that profitability and research investment by pharmaceutical companies had been seriously prejudiced. A higher price was charged over a shorter period. In the UK, the pricing agreements with the National Health Service have the dominant effect. But there are other industries which also require long regulatory and testing periods for new products. In these, such as engineering and construction materials, the market will not bear a significantly higher price because traditional, even though less satisfactory, alternatives are available. Desirable innovation, which could be widely applied, may be held back.
- D9. Our brief look at the issue indicated that it would be difficult for Government to decide on a differential system on objective and acceptable criteria. But the debate so far appears to have focused on the particularly contentious area of pharmaceuticals. There is a case for a wider look at the impact on innovation of variable term patents.

ANNEX E

OUTLINE OF A POSSIBLE GOVERNMENT STATEMENT ON INNOVATION

- E.1 Britain has an enviable and deserved reputation for invention. We spend as much on R and D and education as our competitors.
- E.2 We must seek an adequate return on that investment by trading our bright ideas either as technology or as products.
- E.3 But too often those developing new ideas believe that starting the exploitation process is someone else's task. This attitude is prevalent in universities, Government research establishments and even in some large industrial research laboratories.
- E.4 We want people to be more aware of the value of their ideas. That value can often only be realised if the ideas are first recorded and defined. They can then become a property intellectual property which can be exploited directly or bought and sold. Protection for intellectual property is available through legal rights such as patents, registered designs and copyright. The Government therefore wishes to launch a new initiative to improve awareness of the value of intellectual property and use of the rights and information available:
 - a. The Patent Office should be given a new look, freed of civil service restraints and given broader terms of reference including promoting the use of intellectual property rights as a means of exploiting innovation. It should become a statutory body, self-supporting from fees but under the Government's overall control.
 - b. To help small businesses, we intend to introduce a scheme for twotier patents and to make the system for challenging patent abuse easier and lss expensive. We also want to improve the rights of employee inventors to exploit their own inventions.
 - c. We intend to expand the system of registered trade marks to cover service marks so as to encourage innovation in service industries.
 - d. We shall set up better arrangements for Whitehall coordination with British business to ensure that the country's commercial interests are taken into account in intellectual property negotiations in the European Community and in global arrangements.

Some of the above recommendations will require legislation and we shall introduce an "Intellectual Property and Innovation Bill".

 ${\tt E.5}$ We believe that these measures will help both the innovative producer and the consumer who wants a continuing flow of improved products.