



Legislating for Competitive Advantage in e-Business and Information & Communications Technologies

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Foreword

Ireland's certain, secure and pro-business legal and regulatory environment has proved an important source of competitive advantage for trade and investment. It will be even more important in underpinning the development of a knowledge-based economy in the future. Citizens and businesses need to have confidence that they have the same legal protection on-line as in normal transactions. Companies that invest in research and development (R&D) to develop new innovative business processes, products and business models, and that are using information and communications technologies (ICTs) to more efficiently manage and deliver their products and services, need certainty that their creations are fully protected. Similarly, the emergence of new information and communications technologies such as wireless networks, new activities such as the digital distribution of software, entertainment and education content, and the increased on-line delivery of products and services are giving rise to fundamentally new forms of commerce, which require legal protection.

The legal framework for commerce in Ireland has developed over centuries, through legislation and case law. Over the last three years, Ireland made significant progress in putting the required legal framework in place to support the greater use of ICTs and e-business through the passage of the Electronic Commerce Act, 2000 and the Copyright and Related Rights Act, 2000. These Acts have significantly improved the legal and regulatory environment for e-Business and Ireland's attractiveness as a location for investment. Many governments worldwide are however, enacting similar legislation to provide a supportive legal framework for e-Business.

In the context of these technological and market developments, Forfás commissioned Denis Kelleher, Barrister at Law to review the adequacy, appropriateness and competitiveness of the existing Irish legal and regulatory framework. This review entitled 'Legislating for Competitive Advantage in e-Business and Information & Communications Technologies' outlines the key legal requirements for Ireland to sustain and support the full integration of ICTs in business and society into the future.

This review concludes that Ireland provides solid protection for ICT and e-business related activities, but a number of recommendations are made to improve on Ireland's current position, to provide an appropriate legal and regulatory framework going forward, and to improve Ireland's overall competitiveness in the future, including the following:

- i. Consideration should be given to the establishment of a special division of the High Court, or e-Court, to adjudicate on technology and e-Business related law;
- ii. A series of recommendations are made in relation to Patent, Copyright, and Intellectual Property law to ensure adequate protection for new products, processes and ideas;
- iii. The theft of confidential information should be made an offence so as to provide owners of confidential information with the same protection in Ireland as in other jurisdictions; and,
- iv. Consideration should be given to removing stamp duty on the transfer of intellectual property.

Martin Cronin
Chief Executive Officer

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Executive Summary

Introduction and Background

The development of Ireland as a knowledge economy is a priority of national economic and enterprise promotion policy. A secure, certain and pro-business legal environment is an important condition for the attraction of mobile investment in R&D and e-business related activities and for the encouragement of innovation activity in the economy in general.

Ireland's legal and regulatory environment has provided a source of competitive advantage to date. However, continuous review is necessary because of the pace of technological change, the emergence of new forms of commercial communications and electronic transactions, and policy developments in competing countries.

This report was commissioned by Forfás from Denis Kelleher, Barrister-at-Law¹. The objectives of this report, from an enterprise promotion perspective, are to:

- ▶ Undertake a comprehensive review of Ireland's legal and regulatory environment for e-business activities and the promotion of information and communications technologies (ICTs) relative to best practice internationally;
- ▶ Set out the critical opportunities and threats for the future;
- ▶ Identify areas where Ireland could take a lead in the creation of an attractive environment for e-business; and,
- ▶ Determine key policy requirements and recommend appropriate responses.

While the report reviews many aspects of Ireland's e-business legislation, it pays particular attention to the priority actions summarised in the following pages. Appendix I provides a list of all recommendations.

1. e-Courts

Companies that create, own, manage and distribute intellectual property (IP) and digital works rely upon the law to protect their products from illegal exploitation. A secure and certain justice process is a key consideration in the location decisions of these companies.

Other countries have established specialist divisions of their courts services to deal with information technology, patent, copyright and other related matters. The United Kingdom, for example, has special Patents Court and a Technology and Construction Court, which have developed strong international reputations, and support efforts to attract knowledge and intellectual property intensive companies to locate in that jurisdiction.

Key recommended actions for Ireland include:

- ▶ Consider the options for the establishment of specialist courts in Ireland as Divisional Courts of the High Court to take on specialised types of ICT and e-business related litigation, for example, in relation to patents and copyright.
Action: Department of Justice, Equality and Law Reform, Courts Service

¹ Denis Kelleher BCL (NUI), BL is a practising barrister specialising in information technology law and commercial law. He is the co-author of *Information Technology Law in the European Union*, published by Sweet & Maxwell (London, November 1999) and *Information Technology Law in Ireland* published by Butterworths (Dublin 1997). He is the author of numerous journal articles in Ireland and the United Kingdom and writes on information technology law issues in the *Irish Times*.

- ▶ Encourage the specialisation of a small number of judges in the area of technology law and intellectual property law, that could be assigned automatically to such specialist cases. The Courts Service should also over time seek to direct High Court cases in information technology or intellectual property to judges who have expressed an interest in cases of this type, or have recognised expertise in this area.
Action: Courts Service
- ▶ The deployment and use of electronic communications in the courts should be accelerated.
Action: Courts Service

2. Patents

The legal and regulatory environment should encourage and facilitate firms in the use of patents to protect new products, processes and ideas emerging from research and development (R&D) and innovation activities. As a signatory to the European Patents Convention, at a national level Ireland has little room to legislate in this area. The patent regime in Europe is more restrictive and more costly than in the USA or Japan. In Europe the conditions for granting software patents are stricter than those applied by the US Patent Office, which weakens the ability of companies to raise finance and to bring their products to market by licensing the use of their software inventions. Within Europe, the UK courts are more responsive to patenting computer software. The European Patent Convention also prohibits the patenting of business methods, whereas the US Patent Office will permit patenting of business processes. The cost of patenting an idea in Europe is estimated at over four times the cost in the US.

The EU is currently considering a Proposal for a Directive on the Patentability of Computer-Implemented Inventions, which includes an assessment of the merits of patenting software and 'business methods'. As part of the Directive, it is proposed to establish a Community Intellectual Property Court to deal with any disputes that may arise. It is also proposed to establish a Court of First Instance, as a way of overcoming the divergences which have emerged in the way different EU states interpret the European Patents Convention. It may also help to reduce the high costs of intellectual property litigation, which are discouraging use of the system other than by large organisations.

Key recommended actions for Ireland include:

- ▶ Ireland should be proactive in the formulation of EU-wide patent policy.
Action: Department of Enterprise, Trade and Employment
- ▶ In order to promote the growth of sustainable businesses in software development and related activities, as much protection as possible should be provided by the courts to the creators of intellectual property rights.
Action: Department of Enterprise, Trade and Employment
- ▶ Ireland should actively seek to attract the proposed Court of First Instance dealing with disputes under the European Patents Convention.
Action: Department of Enterprise, Trade and Employment, Department of Justice, Equality and Law Reform, Courts Service

3. Copyright

While patents protect ideas, copyright protects the communication of those ideas. The Copyright and Related Rights Act, 2000 greatly enhances the protections available under Irish law.

Ireland is required to implement the EU Directive on the Harmonisation of Certain Aspects of Copyright and Related Rights in the Information Society by 22 December 2002. This Directive is

largely implemented in the Copyright and Related Rights Act, 2000. However, some provisions are yet to be implemented.

The importance of the ICT sector should be recognised when Ireland implements the EU Directive on the Harmonisation of Certain Aspects of Copyright and Related Rights in the Information Society into law. Specifically the transposition of Article 5 of the Directive would permit the reproduction of works for private persons, but only where the owner of copyright receives fair compensation, possibly from the hardware producers. This may require the payment of copyright royalties on the sale and use of photocopiers and recordable CD drives. From Ireland's perspective, the onus should remain on the copyright holder to store, distribute and sell its products in a manner which protects its rights in Irish law rather than with manufacturers of ICT equipment.

The Copyright and Related Rights Act, 2000 should be examined to ensure that it confers the maximum advantage to Irish authors and investors. Ireland is required to implement the Directive on the Harmonisation of Certain Aspects of Copyright and Related Rights in the Information Society by the end of 2002. This presents an opportunity to re-examine the Act. The Act should be amended to ensure that new types of content and intellectual property such as the digital distribution of films are protected as these move to on-line distribution.

A review of the application of Irish law in relation to criminal liability of Internet use is required. This is to ensure that companies are not liable for the content of websites to which they offer hypertext Internet links from their sites, unless the site is specifically designed as a portal (or window) to material such as pirated music or software.

Key recommended actions for Ireland include:

- ▶ The transposition of the EU Directive on the Harmonisation of Certain Aspects of Copyright and Related Rights in the Information Society into law in Ireland should be done in such a way as to maintain the onus on the copyright holder to store, distribute and sell its products in a manner that protects its rights rather than with manufacturers of ICT equipment.
Action: Department of Enterprise, Trade and Employment
- ▶ The Copyright and Related Rights Act, 2000 should be reviewed to limit criminal liability relating to Internet use and to provide full protection for the on-line distribution of content.
Action: Department of Enterprise, Trade and Employment

4. Theft of Confidential Information

Consideration should be given to making theft of confidential information an offence in Ireland. This is already an offence in the US, France and Germany. This means that the owners of confidential information cannot expect the same protection in Ireland as in other jurisdictions. Extracting confidential information from a database, for example, may amount to an offence under the Copyright and Related Rights Act, 2000 (depending on how the information is used), but only to the extent that the copyright in the database has been infringed.

The absence of such an offence in Irish law creates anomalies, and does not take account of the increasing value of information to Irish firms and investors. The Irish Law Reform Commission has already recommended the creation of a 'Theft of Confidential Information' offence, and recommended that this issue be dealt with by an alteration in the definition of property. It is important to ensure that only genuinely confidential information is protected by criminal law. For this reason, a precise definition is needed for the term 'confidential information', and a variety of exceptions and definitions would have to be included in any legislation enacted.

Key recommended actions for Ireland include:

- ▶ The creation of an offence of stealing confidential information should be examined.
Action: Department of Justice, Equality and Law Reform

5. Taxation

Intellectual property such as patents, trademarks and copyright works are regarded as personal property. Assignments or transfers of personal property are subject to stamp duty at a rate of 6 per cent in Ireland. This, combined with the difficulty of valuing certain types of IP, has the potential to reduce Ireland's attractiveness as a location from which to administer or transfer high-value intellectual property. By comparison, the UK abolished stamp duty on intellectual property in March 2000. This is increasingly an issue as Ireland develops as a location for the creation and distribution of digital content, and the management of patents, licences and royalties.

Key recommended actions for Ireland include:

- ▶ The benefits and costs of removing the stamp duty on intellectual property should be examined.
Action: Department of Finance, Revenue Commissioners

Conclusion

The momentum for the adoption of e-business is growing rapidly at a European level. Ireland should be proactive in providing firms with a secure and certain legal framework. As the early enactment of the Electronic Commerce Act, 2000 illustrated, being proactive can provide significant first-mover advantages. Other countries are, however, catching up quickly.

It must also be recognised that the Irish Government has finite resources to implement the large legislative agenda from the EU and to be proactive on new emerging issues. In this regard, this report sets out a number of priority measures to promote the development of knowledge-based enterprises in Ireland and for the development of the wider information society.

1 Introduction

Over the last number of years, the Irish Government has been promoting Ireland as a leading e-business location, and in July 1999, Forfás published a report, *e-Commerce: the Policy Requirements*, prepared at the request of an Tánaiste and Minister for Enterprise, Trade and Employment, which advocated that the provision of a secure legal environment for e-business would give Ireland a first-mover advantage as a digital business jurisdiction. Significant progress has been made since the publication of that Forfás report, notably through the passing of the Electronic Commerce Act, 2000, the Copyright and Related Rights Act, 2000, the Broadcasting Act, 2001 and the Communications Regulation Act, 2002.

A key recommendation of the Forfás e-Business Monitor Report² was that an appropriate overarching legal framework for e-business be put in place to ensure that the legitimate rights of Government, businesses, intellectual property holders, and citizens/consumers are balanced and protected in a coherent and consistent manner. The results from the Forfás e-business report showed that Ireland continues to be among the leaders in the creation of a secure legal environment, which is one of the most important conditions for the development of e-business. Forfás undertook to provide a comprehensive review of Ireland's e-business legislation,³ and to identify critical future opportunities and threats from an enterprise development perspective. This was of particular relevance given that in November 2001, the Cabinet Sub-Committee on the Information Society agreed to establish an Inter-Departmental Group on Information Society Legal Issues, which is being chaired by the Department of An Taoiseach.

Forfás commissioned Denis Kelleher, Barrister-at-Law⁴ to provide this review and his findings were presented in January 2002 to a workshop of key Government officials (including members of the Inter-Departmental Group on Information Society Legal Issues) with responsibility for e-business.

This review found that as the momentum for the adoption of e-business continues to grow at a European level,⁵ Ireland's current strong advantage in the new emerging activities related to e-business is being eroded. Many countries outside the EU are also developing the required e-business legal frameworks quickly; for example, Argentina, Israel, Japan and Malta have all enacted legislation on digital signatures, thus diminishing the advantage that Ireland had following the passage of the Electronic Commerce Act, 2000. Given the rate of technological change, the emergence of new sectors, and a large legislative agenda from the EU, it is increasingly necessary that Ireland continually reassess progress to ensure that it can leverage the full benefits of the knowledge economy.

The review identified a number of actions that Ireland can take to boost its competitive advantage in relation to the following national priorities:

- ▶ Further development of the e-business and research capabilities of companies (electronic property);
- ▶ Further attraction of foreign direct investment and the development of indigenous enterprise;
- ▶ Wider development of the knowledge economy.

In being one of the first countries to legalise electronic signatures with the Electronic Commerce Act, 2000, Ireland has shown that it sees the benefits of offering both indigenous and multinational firms the

² eBusiness: Where Are We and Where Do We Go From Here?, August 2002.

³ A list of referenced legislation is provided in Appendix IV.

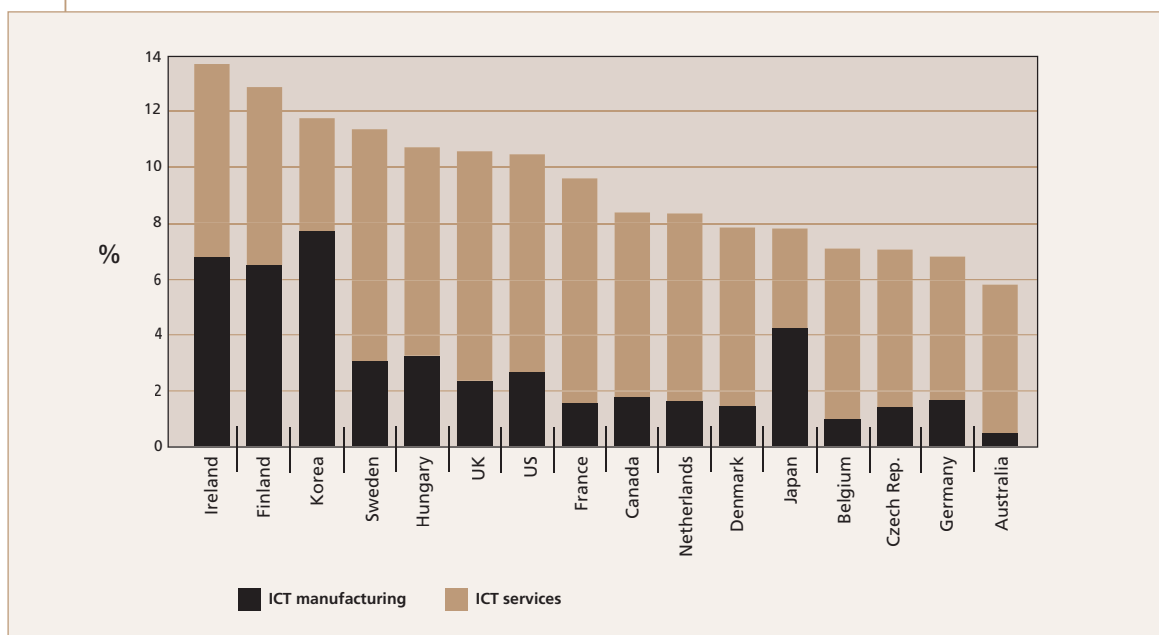
⁴ Denis Kelleher BCL (NUI), BL is a practising barrister specialising in information technology law and commercial law. He is the co-author of Information Technology Law in the European Union, published by Sweet & Maxwell (London, November 1999) and Information Technology Law in Ireland published by Butterworths (Dublin 1997). He is the author of numerous journal articles in Ireland and the United Kingdom and writes on information technology law issues in the Irish Times.

⁵ In June 2000, all EU Heads of State and Governments agreed the *eEurope 2002, an Information Society for All, Action Plan*, which sets out a roadmap for achieving eEurope's targets.

ability to work in a pro-business legal environment. At the same time, it must be recognised that Ireland has finite resources to implement all EU legislation and to remain proactive to new emerging issues.

Figure 1 indicates the importance of the ICT sector to the Irish economy relative to other countries. The ICT sector makes a substantial contribution to economic activity as ICT value added represented 14% of total business sector value added in Ireland in 1999.

Figure 1: Share of ICT Value Added in Business Sector Value Added (1999)



Source: OECD Science, Technology and Industry Scoreboard 2001 - Towards a knowledge-based economy

Given the importance of the ICT sector to Ireland, and the Government’s objective of becoming an e-business hub, all ICT and e-business related legislation should be enacted in a way that creates and maintains a competitive environment in which business can flourish. It is hoped that this document promotes a discussion of the growing importance of the legal environment for the development of ICT and e-Business related activities in Ireland going forward.

2 Factors conducive to the development of e-Property

Ireland is a world leader in the production of intellectual property both commercially (for example, in software) and culturally (for example, in music, film and the arts). The establishment of a multi-media research centre, Media Lab Europe by the Massachusetts Institute of Technology (MIT) and of Science Foundation Ireland should further enhance Ireland's reputation as a location for the development and distribution of intellectual property. In addition, the promotion of both high value-added R&D projects and of businesses that deal in intellectual property (for example, e-content and e-learning) is a priority for the development agencies. If Ireland is to develop further as a European centre for the production and distribution of intellectual property and digital works, it is necessary that it fully protects the rights of the owners of such assets. Critically, this means that the regulatory framework needs to be appropriately amended to ensure that firms based in Ireland operate in a legal environment for e-business that is as conducive to growth as that found in other countries with which we compete.

2.1 e-Courts

Under various EU Conventions on Jurisdiction and Enforcement of Judgements, firms generally defend their intellectual property rights in the country where they are domiciled. As the Brussels Convention on Jurisdiction and Enforcement of Judgements (1968) allows businesses to mutually choose the jurisdiction, companies will naturally look for a secure legal environment and justice process where decisions are certain and predictable. If Ireland is unable to provide a legal system which has the specialised knowledge and experience of the technical issues raised and that is accessible, cost-effective, and swift in protecting the results of research and the investments made by overseas investors, it may find it difficult to attract further investment.

In this respect, the English courts appear to have an advantage over the Irish courts. England has two specialised courts (the Patents Court, and the Technology and Construction Court), which are dedicated to the resolution of disputes in the intellectual property and technology areas. Both courts have specialised procedures, with judges who are internationally recognised specialists in intellectual property and technology law.

English courts are already providing a world leading system for dispute resolution in the area of intellectual property and the enforcement of intellectual property rights. The 'money claim online' system allows certain types of claim to be lodged online and litigants can then monitor their progress through the courts⁶, although once the claim is opposed, the litigation reverts to traditional means. These courts are helping England to attract leading e-business companies to base headquarters functions there.

The Irish courts are beginning to take account of the changing needs of Irish citizens and businesses. In March 2001, the Irish Courts System in its Strategic Plan 2000-2003 announced an investment plan of up to €63m to create e-courts. This will allow many of the court processes to be automated electronically (for example, e-filing and e-payments)⁷. A Working Group chaired by the Hon. Mr. Justice Murray and involving representatives of the Bar Council, Law Society and various State agencies, is developing standards and procedures to allow the electronic filing and display of

⁶ *The Guardian*, 4 February 2002.

⁷ Source: <http://www.courts.ie/Home.nsf/Content/Press+Releases+Opening>

documents in the Supreme Court. Pilot cases using this new system are likely to be heard in 2003, and it is hoped to extend electronic filing to the High Court in due course. While this strategy will allow the courts system to leverage the benefits of ICT for the running of its own business, it does not address the opportunity for Ireland to establish itself as a centre of legal expertise in the area of e-law.

In Ireland, there are chancery lists for commercial cases in the High Court, while the Central Criminal Court deals solely with criminal cases. Since the enactment of the Courts Act of 1924, however, the division of the Irish courts into specialist divisions has been limited. The rules of the Superior Courts, with the last substantial revisions in 1986, have limited application in the area of intellectual property, although they could allow for the use of electronic pleadings and record keeping⁸. It should be noted that the Patents Act, 1964 provided that 'Any appeal from the Controller shall be heard by one judge of the Court and the President of the High Court shall from time to time make arrangements for securing that all appeals under this section shall, so far as practicable, be heard by the same judge'. However, the volume of patents and IP litigation, at that time would not have merited the setting up of a dedicated patents court and this provision was not re-enacted in the Patents Act, 1992.

An Irish expertise in e-business law combined with our unique position as the only common law member of the eurozone could make Ireland a significantly more attractive European headquarters base for major multinationals involved in the creation and distribution of high-value intellectual property. Developing the Information Technology/ Intellectual Property (IT/IP) expertise of the courts could have significant economic benefits for indigenous firms and help to establish Ireland as a centre for e-business and the knowledge economy. Ireland is in the process of developing a cluster of globally significant software and e-business firms⁹. These firms need access to legal expertise locally¹⁰. If Ireland does not have a court system which is capable of dealing with complex IT/IP disputes it will not be able to develop and maintain this legal expertise. Additionally, given the increasingly complex nature of e-business and the related technical developments, many enterprises (particularly SMEs) are unclear of their rights and responsibilities. An expertise in e-business law could promote a greater awareness and understanding of these rights and responsibilities.

Any reorganisation of the courts is strictly a matter for the Courts Service. Members of the judiciary themselves have expressed serious interest in altering the structures of the court system. In January 2002, the Chief Justice announced the creation of the Working Group on the Jurisdiction of the Courts to 'redesign our courts structures for the 21st century' and stated that 'this Working Group has a wide remit to conduct a root and branch examination of the operation of our courts'¹¹. *The 27th Interim Report of the Committee on Court Practice and Procedure* (February 2002) commented that the specialist nature of a commercial e-court would benefit the development of Dublin as an e-city and Ireland as an e-commerce centre. The Committee noted that Ireland already has many advantages, which assist international commercial transactions, such as a settled common law jurisprudence, the use of English, and established skills in major commercial litigation.

The Committee suggested that the benefits of having such a commercial court are several:

- ▶ New businesses would be attracted to Ireland by a jurisdiction with a functioning commercial court system that accommodates modern business and commercial needs;

8 Order 126, Rules of the Superior Courts.

9 'Ireland's software cluster', hotorigin.com, 2002.

10 Rosenberg, Cloning Silicon Valley, Reuters, 2002

11 Statement made the Chief Justice, and Chairperson of the Courts Service Board, the Hon. Mr. Justice Ronan Keane at announcement of setting up of Working Group.

- ▶ Businesses before the court would be able to realise savings from using e-commerce communication techniques; and,
- ▶ Maintaining the State's desire to be a global leader and player in e-commerce through the provision of e-court services.

The 27th Interim Report of the Committee on Court Practice and Procedure noted that '(t)here is merit in establishing a more specialised approach to commercial cases', and recommended that a division of the High Court be developed into a de facto Commercial Court. The Board of the Courts Service is actively exploring this recommendation¹² and a working party has been established under the chairmanship of the President of the High Court to consider the matter in greater detail. If any such court were to be established, its scope would need to be carefully defined. A highly specialised court might not have a high enough volume of cases to make it a success; conversely, a broad focus might not enable the required level of expertise to be built up.

Recommendations for the creation of specialised courts have been made by a number of different bodies. The Company Law Review Group¹³ recommended that a commercial division be established within the High Court, which would deal with all business-to-business and business-to-State civil litigation¹⁴. The Competition and Mergers Review Group¹⁵ suggested that 'competition law cases in the High Court should be determined by a judge drawn from a small panel of High Court judges with a training and/or expertise relevant to competition law and economics, which panel would be nominated for this purpose by the President of the High Court on an informal basis'¹⁶. The OECD in its report on Regulatory Reform in Ireland (April, 2001)¹⁷ also approved of this recommendation.

It is likely that the EU will create its own specialised Community Intellectual Property Court in the future, as was suggested in the Proposed Regulation on the Community Patent (August, 2000) from the European Commission¹⁸. It has been proposed that this court would deal initially with disputes relating to the granting of patents, but its remit could extend to all types of disputes, including those relating to copyright and trademarks. The proposed Court would comprise of courts of first instance (similar to the Irish High Court) and a court of appeals. Ireland should seek to have the Court established here.

The location of such Courts of First Instance could have important implications for Ireland. If the Courts of First Instance of the European Intellectual Property Court were to be located in a centre such as London, it would be to Ireland's disfavour.

To develop the specialist skills and expertise required for an Irish e-Court, members of the judiciary appointed to it would need to be trained to deal with IT/IP disputes. The selected judges would need to regularly participate in international conferences and seminars¹⁹ to heighten the profile of the Irish Courts system. The training, research, and other facilities made available to the selected judges would also have to be reviewed, as would the training, both initial and ongoing, of the legal profession generally.

12 Source: *Government Information Society Action Plan: 'New Connections'*, March 2002. This is available at <http://www.irishgov.ie/taoiseach/press/current/09-04-02.htm>

13 The Company Law Review Group is a standing expert body charged with advising the Minister for Enterprise, Trade and Employment on the review and development of company law in Ireland.

14 *The First Report of Company Law Review Group*, Chapter 12.

15 The competition and Mergers Review Group was established in September 1996 by the Department of Enterprise and Employment.

16 *Report of Competition and Mergers Review Group*, p168.

17 Source: <http://www.oecd.org/EN/document/0,,EN-document-0-nodirectorate-no-3-7665-0,00.html>. This recommendation was approved of by the OECD in its Report on 'Regulatory Reform in Ireland' p215.

18 It remains unclear whether this proposed court would operate on a circuit court basis, or on national basis in each jurisdiction, or in just in a limited number of locations for the entire EU.

19 *E-Commerce Comparative Study* for the Department of Public Enterprise, A&L Goodbody, 2001.

While the advantages of the specialist Courts in London and other leading centres are recognised internationally, the time taken to bring litigation forward through these Courts and the costs of doing so can be significant. Any reform or reorganisation of the Courts in Ireland that could provide considerable savings in both the time taken to bring litigation forward and in the costs of doing so would further promote Ireland as a desirable centre for e-business.

While specific legislation to amend the Court Acts to establish specialist Courts in Ireland as Divisional Courts of High Court could be enacted if necessary, the Courts Service may already be in a position to initiate these changes if they are deemed appropriate. Introducing such a Court at the High Court level would require minimal resources. However, when the Court and Court Officers Bill 2002 is implemented, it will allow the Circuit Court to hear claims relating up to €100,000 and allow the District Court to hear claims relating to up to €20,000. Therefore, it is likely that the Circuit or District Courts will decide many cases relating to technology or intellectual property issues. This means that ideally an expertise in IT/IP related matters should be provided more broadly than simply in the High Court. Appeals procedures would also have to be examined: it would be anomalous to have an initial trial held in a specialist court but to have appeals heard by a non-specialist court.

The rapid pace of change of new technologies means that it is necessary for cases in these areas to be heard quickly. This is critical for the firms involved and for national competitiveness. For example, in the case of *Orange v. Office of the Director of Telecommunications Regulation (ODTR)*²⁰ and *Meteor*²¹ Chief Justice Ronan Keane commented that 'The case has occupied an inordinate degree of court time...(this) was due in part to the absence of appropriate case management structures in the High Court at the time of the hearing...'. This case resulted in a considerable delay in awarding a third mobile phone licence, thus limiting choice in the mobile communications market for business and consumers. The *Sixth Report of the Working Group on a Courts Commission*²² (April 1999) recommended reforms to address delays of this sort. If such reforms were to be introduced on a pilot basis, then it would be appropriate that they should be introduced for IP/IT cases.

Key actions required for Ireland include:

- ▶ Provision of advice to the Courts Service on the relative merits to the enterprise sector of a specialist technology court.
Action: Department of Enterprise, Trade and Employment, the Development Agencies
- ▶ Considering whether specific legislation is required to amend the Court Acts to allow for the establishment of specialist courts in Ireland as Divisional Courts of the High Court to take on specialised types of e-business related litigation – for example, patents and copyright.
Action: Department of Justice, Equality and Law Reform, Courts Service
- ▶ If developed, a specialist IP/IT Court should draw up its own specialised case management procedures, as recommended in the Sixth Report of the Working Group on a Courts Commission. This could take place on a pilot scheme basis.
Action: Courts Service
- ▶ If specialised IP/IT Courts are developed in courts of local and limited jurisdiction, then appropriate procedures must be put in place to ensure that appeals taken from those courts will also be heard in a specialised forum.
Action: Courts Service
- ▶ Encouragement should be given to the creation of a corpus of specialised judges trained in technology law and intellectual property law who would automatically be assigned to such specialist cases.
Action: Courts Service

²⁰ The ODTR will be re-established as the Commission of Communications Regulation under the Communications Regulation Act, 2002.

²¹ 2000 4 IR 159.

²² Mrs. Justice Susan Denham, Dublin.

- ▶ High Court cases in information technology or intellectual property should be directed towards judges who have expressed an interest in these types of cases, or have recognised expertise to hear cases of this type.
Action: Courts Service
- ▶ The development of a wider pool of expertise should be promoted in the legal profession in order to deal with e-commerce dispute resolution.
Action: Department of Justice, Equality and Law Reform
- ▶ Active encouragement should be given to the use of electronic communications and pleadings in the courts.
Action: Courts Service
- ▶ Providing the resources to build a technology-enabled courtroom, which makes the necessary hardware, software and presentation facilities available to all participants.
Action: Courts Service

2.2 Alternative Dispute Resolution

Alternative Dispute Resolution (ADR) refers to the process by which disputes can be resolved without going to court. The Arbitration (International Commercial) Act, 1998 which adapted the UNICITRAL²³ model law on international commercial arbitration has considerably increased Ireland's attractiveness as an international centre for commercial arbitration. This Act facilitates the use of Ireland as an arbitration centre by limiting the liability of arbitrators and by providing that the jurisdiction of the Irish High Court may be invoked as necessary in certain circumstances. Arguably, the 1998 Act has given Ireland a competitive advantage in its attractiveness to international arbitrations²⁴ and in June 2001, the American Arbitration Association established the European Headquarters of the International Centre for Dispute Resolution in Dublin. This has significantly enhanced the status of Ireland as a centre for the resolution of international disputes, including those involving e-business.

ADR is also a useful method in resolving e-commerce disputes involving consumers, where the matter is of lower value and resolution needs to be simple, quick, and inexpensive. A survey²⁵, in September 2001, that analysed the results of 400 online purchases, found that 6 per cent of goods paid for never arrived and that in 9 per cent of cases where the purchaser returned the goods, no refund was given. ADR offers a low-cost, easily-accessible method of resolving such disputes, and is being promoted at a European level in the 'eEurope 2002 Action Plan'.

A pilot project has commenced in the Irish Small Claims Process to deal with disputed transactions, including business-to-consumer (B2C) e-commerce transactions for goods and services²⁶. In addition, an on-line business to consumer pilot project (ECODIR) was commenced in October 2001 in co-operation between University College Dublin and a number of European and North American partners with the support of the Irish Government and the European Commission. This project is designed to improve access to low cost dispute resolution for EU consumers (as an alternative to legal action) and to facilitate and promote e-commerce through the use of on-line alternative dispute resolution.

²³ United Nations Commission on International Trade Law.

²⁴ Paper Delivered by Colm O'Hoisin BL, to International Association of Law Libraries, 19th Annual Course on International Law, 21 August 2000.

²⁵ Consumers International, *Should I Buy? Shopping online 2001: An international comparative study of electronic commerce*, September 2001.

²⁶ Annual Report of Courts Service, 2000, p 79.

Key actions required for Ireland include:

- ▶ As part of a twin-track process, the development of online arbitration systems for both business-to-business²⁷ (B2B) and for business-to-consumer²⁸ (B2C) e-commerce should be encouraged. Progress in each of these areas will promote business and consumer trust in electronic transactions, and reinforce Ireland's attractiveness as an international centre for dispute resolution.
Action: Department of Enterprise, Trade and Employment, Department of Justice, Equality and Law Reform
- ▶ If ADR is to be a practical and cost-effective means of solving disputes relating to e-commerce, then it should be carried out electronically, as happens with domain name disputes under rules developed by the Internet Corporation for Assigned Names and Numbers (ICANN). A review should be undertaken of the technological requirements for e-ADR.
Action: Department of Enterprise, Trade and Employment, Department of Communications, Marine and Natural Resources
- ▶ If the Irish Courts are to operate as an effective mechanism for the appeal and review of e-ADR, then the electronic systems used will have to be integrated or shared. Mechanisms by which the online ADR and the e-Courts (IT/IP Court) could be integrated, building upon the 27th Interim Report of the Committee on Court Practice and Procedure²⁹, should be examined. For example, making a technology-enabled courtroom available for online arbitration cases when the Courts did not require the courtroom might help offset its building costs.
Action: Department of Justice, Equality and Law Reform
- ▶ As Ireland already has a body of trained arbitrators, a review should be undertaken of how this expertise could be expanded at all levels of the Irish Court system, and how supply could be increased.
Action: Department of Justice, Equality and Law Reform
- ▶ As the use of e-ADR by e-government services would encourage the development of Irish expertise in this area and would facilitate the resolution of disputes between State and citizen, the Government should develop its own standards for e-ADR, which industry and commercial bodies could then apply.
Action: Government

2.3 Patents

Intellectual Property (IP) is an essential element in modern information societies, and there is a wide variety of laws that apply to this area. One such law relates to patents, a patent being a transferable property right, which gives the holder the exclusive right to exclude others from manufacture, use, or sale of the invention for a time-limited period. In patent law, inventors can apply to have their inventions protected; if they are successful they then receive a monopoly on how that invention is exploited.

Another form of IP is the law of copyright, which protects the reproduction and distribution of works such as computer programs, music, films, songs, recordings of songs and books. Ireland is a significant producer of all forms of IP, ranging from musical recordings to software, and including new emerging sectors such as biotechnology.

²⁷ Business-to-Business, a subset of e-commerce, is the exchange of products, services, or information between businesses.

²⁸ Business-to-Consumer, a subset of e-commerce, is the electronic trading between business and consumer.

²⁹ Commercial Court - Meeting the eCommerce Challenge (27/02/02), source: www.Courts.ie.

In order to promote R&D and the creation, development and management of intellectual property in Ireland, it is critical that the enterprise sector is capable of using patents to protect new products, processes and ideas. However, as a signatory to the European Patents Convention, 1973, Ireland has very little room to legislate in this area, and there are a number of crucial issues which are as yet unresolved. EU member states have to date failed to agree on the future role of national patent offices and their relationship with the European Patent Office (EPO)³⁰ in Munich, on the future language regime and on the establishment of a community patent jurisdiction.

Other factors that have to be taken into account when comparing the situation in the EU with that elsewhere include the cost of patenting an item and the types of patent that can be applied for.

For example, the cost of patenting an idea is four to five times higher in Europe (EPO estimate of €49,000 per patent) than in the US. The cost of translating patents (25-40 per cent of total cost) into the various EU Member State languages makes the procedure expensive and, at present, there is no agreement as to how to tackle this issue. Enterprise Ireland, through its Intellectual Property Assistance Scheme, can provide funding for patent applications, as well as advice on the protection, development and commercialisation of inventions. However, from the perspective of Irish firms which engage in research, the expensive nature of the present patent system leaves them at a competitive disadvantage compared to their US and Japanese competitors.

Europe also differs from the US in the types of software patents that can be issued. In Europe, an invention has to be of a technical character, while in the US the mere fact that an invention uses a computer or software makes it patentable. According to a study conducted for the European Commission³¹, this difference in standards has resulted in European software developers making less use of the patenting process compared with American firms. The report also noted 'the patentability of computer program-related inventions has helped the growth of computer program-related industries in the (United) States, in particular the growth of SMEs and independent software developers into sizeable, indeed major, companies'. European software developers have raised concerns that the lower use of patents could weaken their ability to raise finance and to bring their products to market through licensing the use of their inventions.

It would be untrue to state that the EPO will not issue patents for computer-implemented inventions; in fact the EPO has issued 20,000 such patents. However, there is confusion in Europe as to how this law is to be applied and there appear to be differences in the interpretation of patent law within Europe. The EU Commission has identified the possibility of divergences developing between the courts of different member states in their interpretation of the law of patents as being a cause for particular concern, and it notes that such divergences have already occurred between the courts of the UK and Germany, and within the EPO itself. The EU Commission is considering these issues, and has issued a Proposal for a Directive on the Patentability of Computer-Implemented Inventions. This draft directive published on 20 February 2002 supports the existing stricter EPO practice of only allowing inventions in which computer programs form an integral part to be patented if the invention concerned provides a technical contribution.

While Article 52(2)(c) of the European Patent Convention prohibits the patenting of business methods³², the US has taken a more liberal view. In *State Street v. Signature Financial Group*³³, Signature sought and was awarded a patent for a system that allowed an administrator to monitor

30 The European Patent Office is the executive arm of the European Patent Organisation, an intergovernmental body set up under the European Patent Convention (EPC), whose members are the EPC contracting states.

31 *The Economic Impact of Patentability of Computer Programs*, European Commission, July 2001.

32 Examples of business process patenting include Amazon.com's '1-Click' Patent, and the designs of e-marketplaces and electronic auctions.

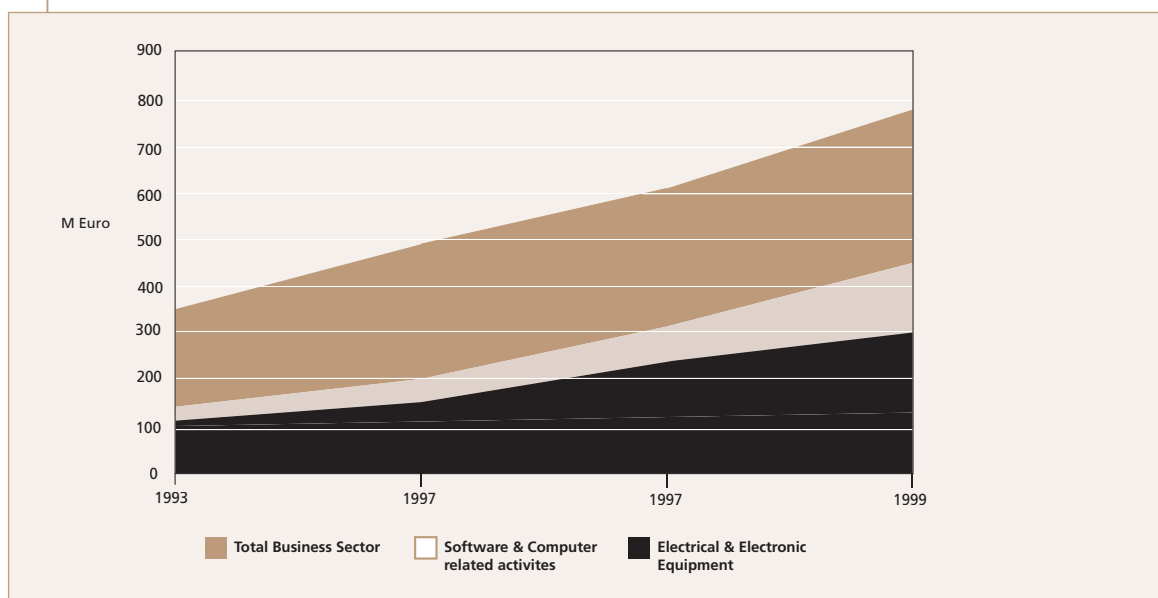
33 149 F.3d 1368; 1998 US App LEXIS 16869; 47 USPQ 2D (BNA) 1596.

and record the financial information flow and make all calculations necessary for maintaining a 'partner fund financial services configuration'. This willingness of the US Patent Office to patent business methods with no apparent technical characteristic may seriously weaken the competitive position of Irish and other European firms across a wide range of sectors.

Determining the relative strength of patent laws from a technology and enterprise development perspective is a complex matter. Some Internet companies have used patents to obtain monopoly rights in certain inventions, the rationale being that by securing the exclusive rights to their discoveries and innovation, enterprise among inventors can be promoted. However using patents to provide legal monopolies can also slow down dissemination of new technologies and best practice and can reduce competition. Furthermore, given the rate of technological change, it may be that continuous innovation rather than legal protection offers the best opportunities to sustain and develop competitive advantage. However, the ideal environment is one which balances the rights of innovators and imitators in all jurisdictions.

Resolution of these issues is of particular importance to Ireland, given that a large and increasing proportion of Ireland R&D expenditure is concentrated in ICT, as can be seen in figure 2.

Figure 2: Distribution of R&D Expenditure by Sector (1993-1999)



Source: Research & Development in the Business Sector, Forfás

While many of these issues must be resolved at a European level, which limits Ireland's ability to legislate unilaterally, **there are a number of key actions which can be taken:**

- Ireland needs to be proactive in the formulation of an EU-wide patent policy which is assessing the business merits of allowing software and 'business methods' to be patented and seeks to reduce the costs of issuing patents. The EU is currently considering a Proposal for a Directive on the Patentability of Computer-Implemented Inventions.
Action: Department of Enterprise, Trade and Employment
- The Proposal for a Directive on the Patentability of Computer-Implemented Inventions will further harmonise national patent laws, which should reduce ambiguities in the implementation of the

current legislation that arise due to the complex and diverse nature of cases. In the future, it will be critical that the courts have a strong understanding of the role of patents, the capacity of software to be innovative, and the potential benefits and costs of seeking patents. Ireland should examine how it can provide as much protection as possible to the creators of intellectual property rights in these subject matters, in the context of its existing international commitments.

Action: Department of Enterprise, Trade and Employment

- ▶ As divergences have emerged in how different EU states interpret the European Patents Convention, the creation of a Community Intellectual Property Court has been proposed as a remedy. Such a court has also been called for in order to reduce the costs of IP litigation, as high costs are discouraging the use of the system, other than by large organisations. If such a court should be established, and depending on the structure that this proposed court would adopt³⁴, then the Government should seek to have the Court of First Instance of the proposed Community Intellectual Property Court based in Ireland. Despite its limited domestic market, there may be significant opportunity for Ireland to develop a critical mass of e-business law expertise.

Action: Department of Enterprise, Trade and Employment

- ▶ Irish researchers and entrepreneurs should be made aware of how they can protect their ideas. Different strategies may be suitable for different jurisdictions, given the differences between European and US patent law. One example is defensive publishing, where details of the idea or suggestion are published. This means that even if a rival patents a similar idea, the fact that it has been previously published can be used to set aside the patent or deny any attempt to seek damages.

Action: Enterprise Ireland, the Enterprise sector

- ▶ If Irish researchers and entrepreneurs have definite prospects/plans for commercialising their intellectual property in the US and the resources to actively pursue such plans, they should be informed of their options in relation to patenting a computer-implemented invention or business concept in the US Patent and Trademark Office (USPTO). Patenting ideas at the USPTO would only provide protection in the US, and would not extend to Europe. However, as many indigenous firms, particularly in the software industry, primarily focus on the US market, patenting with USPTO should be considered.

Action: Enterprise Ireland, business associations

2.4 Copyright of e-Property

While patents protect ideas, copyright protects the expression of ideas. Copyright is the exclusive right of a creator to reproduce, prepare derivative works, distribute, perform, display, sell, lend, or rent their creations. It is an unregistered right (unlike patents, registered designs, or trademarks). Copyright comes into effect immediately, as soon as something that can be protected is created and 'fixed' in some way – for example, on paper, on film, via sound recording, as an electronic record on the Internet, and so on. The function of copyright law is to enable firms and individuals to control and exploit the copying and distribution of their works.

As the copying of e-property can now be done with perfect digital reproduction and as the online delivery of products such as software and music is evolving, the distinction between the original and a copy is breaking down, both practically and in terms of quality. The Copyright and Related Rights Act, 2000 has greatly enhanced the protections available under Irish law – for example by specifically protecting databases, creating rights for performers and creating moral rights for authors.

³⁴ It remains unclear whether this proposed court would operate on a circuit court or national basis in each jurisdiction, or in just in a limited number of locations for the entire EU.

While the Copyright and Related Rights Act 2000 is less than two years old, a review of this legislation is not premature. This proposal reflects three factors: first, the rapid pace of technological change, which has particularly affected the distribution and sale of copyright works; second, the importance of copyright works to the Irish economy and society; finally, Ireland is required by EU law to implement a revision of its copyright laws by 22 December 2002. In these circumstances, it would be prudent to carry out a review of the Irish copyright laws to ensure that they maximise Ireland's position in the new digital economy.

A summary review of the Act identifies a number of crucial issues. The first relates to electronic mail (e-mail). The way in which e-mail is used creates a danger that authors and other creators, producers and owners of copyright work may casually dispose of their interests without proper reflection or advice. This danger has been identified by the UK Law Commission³⁵, which suggested that in such cases a requirement that the assignment be made with what is referred to in the Irish Electronic Commerce Act, 2000 as 'an advanced digital signature'. The consequences of inadvertently assigning copyright in one's works would have very serious consequences for any author, performer or owner of copyright works. It is a particular danger with copyright, as unlike other transfers of property such as land, all that is required to make a transfer effective are: 'any words apt to transfer the property'³⁶ and there is no requirement that any consideration be given for such a transfer.

Either the Copyright and Related Rights Act, 2000 or the Electronic Commerce Act, 2000 should be amended to ensure that copyright and other related rights can only be assigned electronically by the use of an advanced electronic signature. The Copyright Act, 2000 provides that copyright can only be assigned or sold by means of a written contract, which must be signed by the author or owner. This provision protects authors and owners of copyrights from assigning their copyright inadvertently or without due reflection. The Electronic Commerce Act, 2000 provides that these requirements may be fulfilled electronically such as by e-mail. Requiring the use of an advanced electronic signature would ensure that authors or copyright owners who use e-mail do not assign their rights without considering the implications or taking the opportunity to seek advice.

A review of the definitions and technical terminology of the terms used in the Copyright and Related Rights Act, 2000 should be undertaken to see if they are 'technology neutral'. The Copyright and Related Rights Act, 2000 protects content differently depending upon which medium it is contained or distributed in. For example, a visual image may be protected as a film, a broadcast, a television programme, a photograph, an artistic work, or even a work of artistic craftsmanship. However content creators create and merge reusable content for different media and the distinctions between communications media are increasingly blurred. These media – radio and TV transmissions, phone calls and the Internet – are converging into a single medium of electronic communications services or networks. There may therefore be a case for simplifying the law to reduce the number of classes of works which are protected by Irish copyright law, although any analysis will have to take account of international treaties and conventions, as well as of EU law.

The status of transmissions over next generation (e.g., 3G mobile communications) networks in copyright law may also need to be clarified. If material from the Internet is transmitted over a 3G network, the question is whether this is making the work available to the public over the Internet (covered by section 40(1)(a) of the Copyright and Related Rights Act, 2000), or is a broadcast (covered under section 40(1)(c) of the same Act). If the 3G transmission is to a group of people this may also affect the issue. This is significant because each use of a copyright work has to be authorised by the copyright owner; therefore an owner who has consented to their work being made available over the Internet will be entitled to object to that work being broadcast over a 3G network. Depending

³⁵ <http://www.lawcom.gov.uk/homepage.htm>

³⁶ Laddie Prescott & Vitoria, *The Modern Law of Copyright and Designs*, Butterworths, London, 1995, para. 13.11, p. 602

on how the transmission of a work over a 3G network is defined, the operator of a network might be liable for copyright infringement if it were to be held that the work was being broadcast, but the operator might be able to escape liability if it were held that the work was being made available over the Internet. A review of Irish law should be undertaken to examine whether it is necessary or possible to clarify definitions such as this, taking into account the various international conventions and EU laws which apply. From an enterprise development perspective, this could benefit Ireland as base for (mobile) m-commerce as more sophisticated content and applications are developed and transmitted over mobile networks.

Key actions required for Ireland include:

- ▶ Ireland is required to implement the Directive on the Harmonisation of Certain Aspects of Copyright and Related Rights in the Information Society by the end of 2002. This presents an opportunity to re-examine all the provisions of the Copyright and Related Rights Act, 2000 to ensure that its provisions confer the maximum advantage on Irish authors and investors.
Action: Department of Enterprise, Trade and Employment
- ▶ Certain provisions of the Copyright and Related Rights Act, 2000 should be reviewed to limit criminal liability relating to Internet use. While recognising that this Act has been developed in tandem with international agreements³⁷, it is felt that a review of the application of Irish law should be undertaken to ensure that companies are not liable for the content of websites that have hypertext links from their sites, unless the site is specifically designed as a portal to inappropriate material such as pirated music or software.
Action: Department of Enterprise, Trade and Employment
- ▶ The Copyright and Related Rights Act, 2000 was developed as traditional media such as music were moving online. It will be necessary in the future to ensure that the legislation is updated to ensure it is technology neutral, as new types of content and intellectual property move online – for example, the digital distribution of films.
Action: Department of Enterprise, Trade and Employment

2.5 Theft of Confidential Information

Irish law does not specifically recognise any offence of theft of information. For example, if confidential information is extracted from a database, then depending on how it is used subsequently, this may amount to an offence under the Copyright and Related Rights Act, 2000, but only to the extent that the copyright in the database had been infringed, or under general fraud and larceny offences. This means that the owners of confidential information cannot expect the same sort of protection in Ireland as they may receive in other jurisdictions. The creation of an offence of stealing confidential information should therefore be examined.

The absence of such an offence in Irish law creates anomalies and does not take account of the increasing value of information to Irish businesses and investors. The Irish Law Reform Commission³⁸ has already recommended the creation of a 'Theft of Confidential Information' offence, and that this issue be dealt with by an alteration in the definition of property.

To ensure that only information which is genuinely confidential is protected by the criminal law, the meaning of confidential information would have to be precisely defined in a technology-neutral fashion and a variety of exceptions and definitions would have to be included in the proposed offence. The theft of material should be treated equally before the law whether it is electronic or paper-based. The creation of a statutory provision in relation to electronic information would also enable the exceptions to the protection to be set out and clarified.

³⁷ Most importantly, the Berne Convention for the protection of literary and artistic works, and the agreement of the World Trade Organisation on intellectual property: the TRIPs agreement.

³⁸ The Law Reform Commission is an independent statutory body established under the Law Reform Commission Act, 1975, to keep the Irish law under review and to make recommendations for its reform. <http://www.lawreform.ie/>.

The key required action for Ireland include:

- ▶ The creation of an offence of stealing confidential information should be examined, as Irish law does not specifically recognise any offence of theft of information.
Action: Department of Justice, Equality and Law Reform.

2.6 Domain Names

The Irish Domain Registry (IEDR) is responsible for the allocation of the .ie domain name. A review should be undertaken to examine how the .ie registry can best serve the needs of Irish consumers and businesses. Where disputes arise, there may be a case for the establishment of an arbitration service. Such a service is provided by NOMINET in the UK, and a similar service is proposed in the Netherlands.

Key actions required for Ireland include:

- ▶ Undertake an analysis of benefits of creating subdomains of the .ie domain name such as the successful .co.uk subdomain for UK-based companies, or the newly created .me.uk domain for individuals.
Action: Department of Communications, Marine and Natural Resources, The Irish Domain Registry
- ▶ Consider the possibility of introducing an Irish arbitration service such as that provided by NOMINET³⁹ in the UK or as recommended for the Dutch domain (.nl)⁴⁰. The IE Domain Registry (IEDR) should be encouraged to maintain the discussions it has initiated with the World Intellectual Property Organization (WIPO) in this regard.
Action: Department of Communications, Marine and Natural Resources

2.7 Electronic Property Bill

The production, distribution, and sale of e-property such as software, music, films and other works over the Internet is an increasingly important part of Ireland's developing Internet economy. Given how rapidly these technologies change, it would be beneficial to update IP law regularly by means of a consolidated e-Property Bill. The purpose of this Bill would not be to necessarily consolidate existing laws, but to develop a mechanism to deal with emerging IP legal issues. In developing such a Bill, it would be necessary to ensure that it would remain 'technology neutral', and that it would not develop a new category of technology-specific rights.

An e-Property Bill could address many of the issues as outlined above. An e-Property Bill could include sections covering copyright, theft of confidential information, and the establishment of e-courts. Furthermore, such a Bill could prove to be a strong marketing tool for the development agencies in developing higher value-added e-business and R&D projects. The proposed headings for a draft e-property bill are shown in Box 1.

39 Nominet UK is the Registry for .UK Internet Domain Names.

40 Final Report on the Dutch Domain Name debate, 22nd November 2001.

Box 1: *Possible Heads for an Irish e-Property Bill, 2002*

Part I. Preliminary and General	
Head 1	Short title and Commencement;
Head 2	Definitions;
Head 3	Repeals.
Part II. Copyright	
Head 1	Revision of definitions in Copyright and Related Rights Act 2000;
Head 2	Possible revision of owner's rights, possibly to include an exemption in relation to 3G services;
Head 3	Electronic assignments of Copyright;
Head 4	Interaction of Copyright law with the Working Time Act;
Head 5	Licensing;
Head 6	Right to Privacy;
Head 7	Measures to implement Directive on the Harmonisation of Certain Aspects of Copyrights and Related Rights in the Information Society.
Part III. Confidential Information	
Head 1	Definitions, in particular definition of trade secrets;
Head 2	Offence of theft of trade secrets;
Head 3	Offence of false threat of prosecution of trade secrets / false claim of ownership of trade secret;
Head 4	Setting out of exceptions;
Head 5	Penalties.
Part IV. E-Courts	
Head 1	Creation of division of High Court as e-court or IT/IP Court;
Head 2	Judge(s) of the High Court to be assigned by President of the High Court and period of assignment (whether at discretion of President or otherwise);
Head 3	Creation of rules of procedure for IT/IP Court;
Head 4	Provision of specialised training for members of IT/IP Court;
Head 5	IT / IP Court to have discretion to hold hearings on-line, whether with consent of parties or otherwise;
Head 6	Appeals from Arbitration and interaction with Arbitration Act 1995.
Part V. Miscellaneous	

3 Factors Conducive to Enterprise Promotion

Acknowledging the need to put in place 'light-touch', technology-neutral legislation governing electronic commerce, many Governments world-wide are working to produce a supportive legal framework for e-business. Appendix II outlines how Ireland compares with leading and competitor countries in relation to a range of legal factors⁴¹.

From an Irish perspective, it is essential that legislation supports both existing e-business and the promotion of further foreign direct investment for Ireland. The appropriate legislation would give Ireland a competitive advantage over its European competitors in attracting US firms to locate operations in Ireland and would benefit indigenous firms. However, a review of best practice in leading countries shows that a number of key issues remain to be addressed in Ireland.

3.1 Stamp Duty

As the tax regime currently stands in Ireland, intellectual property such as patents, trademarks and copyright works is regarded as personal property. As such, assignments of intellectual property (over €76,200) are subject to stamp duty at a rate of 6 per cent. Given the difficulty of valuing certain types of intellectual property, this increases the costs of administering this tax, as independent third-party assessor involvement may be required. This creates uncertainty over the size of the liability. Additionally, if an intellectual property transfer consists of both Irish and non-Irish intellectual property or goodwill, all of the rights assigned may fall within the charge to Irish stamp duty because of the scope of the statutory charging provision.

As the development agencies are encouraging existing and potential clients to manage high-value intellectual property in Ireland – specifically the creation and distribution of digital content, and the management of patents, licences and royalties therein – the stamp duty on the transfer of Irish-situated intellectual property complicates international transactions.

As can be seen in Appendix II, a range of countries including The Netherlands, Israel and Singapore do not place stamp duty on intellectual property. The UK abolished stamp duty on instruments relating to intellectual property with effect from 28 March 2000. This exception covers patents, trademarks, registered designs, domain names, and the goodwill which may attach to intellectual property.

The key required action for Ireland is:

- ▶ Evaluating the benefits and costs of removing the 6 per cent stamp duty on intellectual property in Ireland. This abolition could be achieved by way of specific exemption from Irish stamp duty along the lines of that introduced in 1992 in respect of certain financial services instruments in the context of the then developing financial services/IFSC sector.

Action: Department of Finance, Revenue Commissioners

⁴¹ Source: A&L Goodbody, *E-Commerce Comparative Study for the Department of Public Enterprise*, March 2001.

3.2 Taxation of Online e-Commerce Revenues (VAT)

The transnational nature of e-commerce and the several initiatives being undertaken by bodies such as the OECD⁴² have meant that most Governments have not yet introduced any specific taxation regime significantly different from the normal regime. The taxation of online e-commerce revenues remains a contentious issue world-wide. The EU and US views generally differ, with the US likely to extend its tax ban for on-line transactions for at least a further two years.

In May 2002, the EU adopted a Directive and Regulation on VAT on electronically supplied services, having agreed in December 2001, that EU member states would collect VAT on the sales of digital products and services made outside the EU to customers inside the EU. These will come into effect on 1 July 2003. The new rules will remove the competitive distortion currently facing EU businesses vis-à-vis their non-EU competitors.

As regards the VAT that will be chargeable on sales of digital products and services supplied by companies outside the EU to private customers within the EU, this will be payable to the member state of the supplier's choice, but at the rate applicable in the country of consumption⁴³. EU business customers to whom digital services are supplied will be reverse-charged subject to the rate of VAT applicable in the member state in which their business is located or has an establishment which receives the services. Exports of digital services outside the EU will be free of VAT.

Educational publishers are lobbying Governments and the EU to make paid-for electronic information free from VAT in the way that educational books are. According to the Financial Times⁴⁴, electronic publishers believe current VAT rules are holding back the adoption of new technologies by treating paid-for information published electronically as a service liable for full VAT while the same material appearing in print is treated as a 'good' and consequently a low (or, in some cases, a zero) rate of VAT is applied across Europe.

The Revenue Commissioners are also planning to enact regulations (ahead of an EU directive which will not come into force throughout the EU until 1 January 2004) that will ease the compliance burden on businesses by issuing VAT invoices electronically. This will reduce paperwork for businesses, and allow faster and more accurate filing of returns.

The key required action for Ireland is:

- ▶ While many of these issues are being decided at a European/ transnational level, it is critical that the Government and the development agencies continue to monitor the situation and to assess the implications for the enterprise sector in Ireland.
Action: Department of Enterprise, Trade and Employment, Forfás, IDA Ireland, Enterprise Ireland

3.3 Internet Service Providers (ISPs)/ Internet Data Centre (IDC) Liability

ISPs and IDCs play a critical role in the provision of Internet access, e-mail and other web services to business and consumers. In Europe there has been significant uncertainty over whether these service providers can be held liable for content that is distributed or stored over their networks or through the services they provide. Exposure to potentially criminal liability is not conducive to indigenous ISPs providing services in Ireland, or for overseas ISPs to service international markets using Internet data centre facilities located here.

At a European level, the Directive of the Legal Aspects of Electronic Commerce 1999 has addressed this issue by ensuring that ISPs are not exposed to certain liabilities. This directive has yet to be implemented in Ireland, and the implementation of its provisions would give ISPs substantive

⁴² Organisation for Economic Co-operation and Development.

⁴³ However, EU Member States will share out VAT revenues pro rata.

⁴⁴ *Financial Times*, 25 February 2002.

protection in Ireland. In transposing this directive into Irish law, it is necessary to ensure that ISPs be exempt from liability under certain circumstances as detailed in Appendix III.

It is also necessary to review other provisions of Irish law to assess the implications they have for ISP liability. These provisions include Section 23 of the Electronic Commerce Act, 2000 which extends liability for defamation online to the 'retention of information electronically'. The Criminal Justice (Theft and Fraud Offences) Act, 2001 may also overturn the privacy protection provided in the Electronic Commerce Act, 2000, and may create potential liabilities for ISPs.

Key actions required for Ireland include:

- ▶ Implementation of the Directive of the Legal Aspects of Electronic Commerce into Irish law in order to clarify the duties and liabilities of ISPs/ IDCs in transmitting, storing and hosting information.
Action: Department of Enterprise, Trade and Employment
- ▶ Assessment of ISP liability under the Electronic Commerce Act, 2000, the Criminal Justice Act, 2001 and other acts as appropriate, to ensure that the legitimate rights of Government, businesses, and the consumers are balanced and protected in a coherent and consistent manner.
Action: Department of Communications, Marine and Natural Resources, Department of Justice, Equality and Law Reform

3.4 Copyright

Ireland is required to implement the EU Directive on the Harmonisation of Certain Aspects of Copyright and Related Rights in the Information Society by 22 December 2002. While many aspects of this directive have been dealt with in Ireland's Copyright and Related Rights Act, 2000, there are other provisions of the Directive that may require new legislation.

Article 5 of the Directive may have significant implications for Ireland. The provisions of Article 5(2)(a)⁴⁵ and 5(2)(b)⁴⁶ may require the payment of copyright royalties on the sale and use of photocopiers and CD-RW drives. This article would permit the reproduction of works for private persons, but only where the owner of copyright receives fair compensation, possibly from the hardware producers. In September 2001, a German Court ordered Hewlett-Packard to reveal how many CD drives capable of recording music it had sold in Germany in the previous three years. This is part of an ongoing process in which German copyright agencies are seeking levies from Hewlett-Packard in respect of each of those drives.

If a similar position were adopted in Ireland, this could have serious consequences for Ireland as an attractive location for IT manufacturing firms. To date, the attitude of successive Irish Governments to the idea of introducing levies on blank media has been negative.

The key required action for Ireland is:

- ▶ The importance of the ICT sector to the Irish economy must be recognised when Ireland implements Article 5 of the EU Directive on the Harmonisation of Certain Aspects of Copyright and Related Rights in the Information Society into law. In this context, the onus should remain on the copyright holder to store, distribute and sell its products in a manner which protects its rights.
Action: Department of Enterprise, Trade and Employment

45 'Member States may provide for exceptions or limitations to the reproduction right....in respect of reproductions on paper or any similar medium, effected by the use of any kind of photographic technique or by some other process having similar effects, with the exception of sheet music, provided that the right- holders receive fair compensation'.

46 Member States may provide for exceptions or limitations to the reproduction right provided for in Article 2 i.... in respect of reproductions on any medium made by a natural person for private use and for ends that are neither directly nor indirectly commercial, on condition that the rightholders receive fair compensation which takes account of the application or non-application of technological measures referred to in Article 6 to the work or subject-matter concerned.

3.5 Employment Law and Restraint of Trade Clauses

The role of cluster development in the growth of the US technology sector is well documented, as is the contribution that employee mobility makes to such development. Some commentators in the US have credited the weaker restraint of trade clauses in Californian employment contracts as a key reason for the stronger development of the technology sector there than elsewhere. Restraint of trade clauses restrict employees' ability to leave one company and set up or join a rival company within a defined period. While restraint of trade clauses are more restrictive in Ireland, competing interests need to be carefully balanced: a 12-month restraint, which is appropriate in traditional industries (for example, the sale of milk door-to-door), may be inappropriate in an Internet environment where very rapid change is the norm.

The position of workers within the knowledge economy also needs to be examined, in particular how intellectual property laws will interact with laws relating to employment. One example is the impact of the Working Time Act, 2000 upon the ownership of works produced by employees during hours worked in excess of the statutory maximums set out in that Act.

The key required action for Ireland is:

- ▶ With approximately 100,000 people employed in the ICT sector in Ireland, it may be useful to discuss with business, trade unions and employees their views on Ireland's more restrictive practices, and if required, assess whether suitable amendments could be made to Irish employment law.
Action: Department of Enterprise, Trade and Employment

3.6 e-Privacy

One of the most difficult legislative tasks is that of reconciling the right to privacy with the conflicting right of the Gardaí to investigate crime. The pro-privacy aspects of Ireland's Electronic Commerce Act, 2000 have been very well received in Ireland and internationally, particularly in contrast with the UK's Regulation of Investigatory Powers Act, 2000. While the EU Data Protection Directive 1995 has yet to be implemented⁴⁷, the Data Protection (Amendment) Bill 2002, which will implement the Data Protection Directive in full, was published in February 2002. This legislation should be implemented in a way that limits the costs imposed upon business. Greater development in relation to privacy at work also needs to be completed. Clear guidance needs to be given on what is and what is not acceptable monitoring in the workplace; at present it is not clear whether employers can monitor employee communications at any stage.

Key actions required for Ireland include:

- ▶ The policy on e-privacy needs to be clarified; the Electronic Commerce Act, 2000 suggests that Ireland is strongly in favour of e-privacy, but the delay in transposing the 1995 Directive would imply otherwise.
Action: Government
- ▶ As Ireland has to implement the Data Protection Directive, 1995, it should ensure that this is done in the most pro-business way possible. Given the potential costs and compliance burden arising under this Directive, it is important that the legislation for introducing the Directive be subjected to the widest possible consultation process so as to maximise input from business, the legal profession, consumer groups and other interested parties.
Action: Department of Justice, Equality and Law Reform

⁴⁷ Except for the introduction of Articles 4,17,25 and 26 of the Directive through a Statutory Instrument in Ireland.

- ▶ Until the EU Data Protection Directive 1995 is implemented⁴⁸, comprehensive guidelines should be published along the lines of those published by the UK Data Protection Registrar. The availability of the guidelines online would assist businesses in assessing and meeting their obligations under Irish data protection law.

Action: Department of Justice, Equality and Law Reform

3.7 e-Business – Sectoral Measures

With the introduction of the euro and the favourable position of the IFSC, Ireland is in a good position to continue to take advantage of trends in the financial e-business sector. For example, many banks have set up Internet services. However, the complex laws relating to banking may have to be reviewed to see if they are applicable to the Internet, and to ensure that they facilitate the full development of online banking and other financial services in Ireland.

This should be undertaken in conjunction with a review of the issues relating to e-money and e-payments. In the case of e-money, there needs to be an examination of the provisions of the Electronic Commerce Act, 2000, as all forms of e-money will rely on encryption. Ireland should assess how provisions of the Electronic Commerce Act, 2001 will apply. The Government should also consider enabling all Government departments (through the Public Service Broker) to accept payment for contracts or services using electronic means, where the issuing credit institution is validly licensed in the EU.

The key required action for Ireland is:

- ▶ Ireland needs to examine provisions of its laws that relate to specific sectors such as e-money and e-payments on the Internet.

Action: Government

⁴⁸ The Department of Justice Equality and Law Reform have already made regulations implementing Articles 4, 17, 25 and 26 of the Directive. These regulations will fall when the Directive is implemented in full.

4 Development of the Knowledge Economy in Ireland

A clear, supportive legal and regulatory framework is vital to the development of the knowledge economy. It is imperative for both businesses and consumers to be confident that they have the same legal security, protection, and rights for electronic transactions, contracts, and communications as for their conventional transactions.

4.1 e-Voting

The technologies associated with the evolving information society have enormous potential to improve the delivery of public services, and to transform the manner in which Government interacts with its citizens. The Government's Information Society Action Plan, *New Connections*, published in April 2002 outlines the vision of 'having all public services that are capable of electronic delivery available online, through a single point of contact, by 2005'. The report also outlines progress to date in the legal and regulatory area and priority actions for the period 2002 – 2005⁴⁹.

Ireland is updating its laws to take account of the Internet. An important example concerns electronic voting, where the Electoral Amendment Act, 2001 has changed the law to permit electronic ballots and electronic counting of votes. In the recent general election, the Department of the Environment and Local Government installed electronic voting machines in polling booths in three constituencies, and was in general well received. This may be extended nationally in future elections. However, it is still envisaged under the Act that in the main the electorate will travel to polling stations to vote.

Key actions required for Ireland include:

- ▶ A review should be undertaken of how data collected through new e-government services such as Reach⁵⁰ or e-Broker⁵¹ will be analysed by state agencies, and how this will affect the implementation of the EU Data Protection Directive of 1995.
Action: Reach
- ▶ Using encryption technology, examine options for the electorate to cast its votes electronically by PC, digital TV or through a mobile phone, and as appropriate review electoral law⁵² to assess the procedural changes required for Internet voting to be introduced.
Action: Department of the Environment and Local Government

4.2 CyberCrime

With the explosive growth in the digital economy over recent years, criminal or harmful activity involving computers and telecommunications networks, also known as 'Cybercrime', has become an increasingly important issue. Some of these cybercrimes are new ways to commit well-established

49 *New Connections: a strategy to realise the potential of the Information Society*, March 2002. This is available at <http://www.irishgov.ie/taoiseach/press/current/09-04-02.htm>

50 Reach is an agency established by the Irish Government to develop a strategy for the integration of public services and to develop and implement a framework for electronic government.

51 The e-Broker, when fully implemented, will provide a central gateway to electronic services and information across all levels of government.

52 Including the Presidential Election Acts, the Seanad Electoral Acts, the Electoral Acts, and the European Electoral Acts.

offences; others are entirely new practices. While many of the well-established offences can be dealt with under existing law, a variety of activities fall under the cybercrime umbrella. These include:

- ▶ hacking, and network interference and sabotage;
- ▶ illegal content;
- ▶ infringement of intellectual property rights;
- ▶ fraud and forgery involving electronic data;
- ▶ illegal interception, data theft, and data modification;
- ▶ virus dissemination.

As with any legislation, care is required to balance the rights of all. In the area of cybercrime, there can be conflict between rights – for example, between the security and law enforcement concerns of Government and the privacy rights of firms, employees and citizens.

The UK Information Security Breaches Survey 2002⁵³ found that 44 per cent of businesses in the UK had suffered at least one major security breach in the previous year, the average cost of a serious breach being £30,000 with several businesses reporting breaches that had cost in excess of £500,000. The survey suggested that information security breaches had cost UK industry several billions pounds in 2001.

Ireland signed the Council of Europe's Convention on CyberCrime in February 2002. The implementation of the Convention means that Irish law will substantively improve the legal protection given to Irish businesses, service providers, consumers, users and institutions. The Convention will require Ireland to legislate for new offences such as illegal access, data and system interference, and computer-related forgery and fraud. As Cybercrimes can be committed at any time, the Cybercrime Convention requires Ireland to create a 24/7 network, to respond immediately to cyber crime in Ireland, and to provide mutual assistance in the gathering of evidence of cross-border cyber crimes.

The Convention on Cybercrime will create new liabilities for those who facilitate Cybercrime, an examination should be undertaken as to how this will affect employers and service providers who provide such facilities pursuant to their own commercial functions. The EU has issued a Proposal for a Council Framework Decision on Attacks against Information Systems⁵⁴. This is designed to provide for offences such as illegal access to and illegal interference with information systems.

Key actions required for Ireland include:

- ▶ Giving priority to the implementation of the Council of Europe's Convention on Cybercrime to improve the legal protection given to Irish consumers, businesses, institutions and service providers.
Action: Department of Justice, Equality and Law Reform
- ▶ Addressing 'denial of services attacks' through the implementation of the Convention on Cybercrime. Irish legislation currently does not address this problem, which is one of the most common forms of online attack. It involves the bombarding of Internet servers with messages so that legitimate users cannot communicate with the website, as systems become overloaded and crash.
Action: Department of Justice, Equality and Law Reform

⁵³ Source: <https://www.security-survey.gov.uk/>

⁵⁴ Brussels, 19.04.2002 COM(2002) 173 final.

- ▶ An offence of 'assuming another's identity or to pose as an identified third person for the purpose of making a gain or causing a loss to another' should be created. (The US Treasury's Financial Crimes Enforcement Network has reported a significant rise in the number of 'identity theft' crimes in 2000⁵⁵.) The definition of such an offence could be developed further to include the invention of an identity.
Action: Department of Justice, Equality and Law Reform
- ▶ As part of the implementation of the Convention on Cybercrime, Ireland needs to review all criminal offences which apply to the Internet. The objective of this review would be to examine the need for updated and technology-neutral laws to facilitate the effective investigation and prosecution of criminal offences related to computer systems and data. Penalties for cybercrime, and in particular financial penalties, should be increased.
Action: Department of Justice, Equality and Law Reform
- ▶ The implications of the Proposal for a Council Framework Decision on Attacks against Information Systems should be examined.
Action: Department of Justice, Equality and Law Reform
- ▶ The resources required to credibly enforce such legislation should be quantified. This is important, as it would demonstrate the Irish Government's commitment to the enforcement of its legislative provisions.
Action: Department of Justice, Equality and Law Reform

4.3 Competition Policy

Copyright owners have a right to protect their property against intellectual property theft and piracy. Ireland has made considerable progress in this regard in recent years; in 1996, 71% of all software used by businesses in Ireland was pirated. Updated legislation, the setting up of a dedicated computer crime unit as part of the Garda Fraud Office, and increased vigilance on the part of the software industry have reduced this figure to 41%⁵⁶ as estimated by the software industry.

At the same time, it is vital that consumers should not be denied the benefits of low-cost online distribution. If digital goods such as music, movies and software can be legitimately purchased online at a much lower cost than in traditional shops, this will create a valuable incentive for consumers to connect to the Internet and become real participants in electronic commerce. The Competition Authority can act with regard to abuse of dominant positions, and the recently enacted Competition Act, 2002 increased the resources available to the Competition Authority to do so.

As demand for online content grows, Irish content firms should be motivated to move online. In this context, it is important that no group or company should be allowed to monopolise online distribution channels in Ireland. This will ensure that consumers have a choice, and that the producers of intellectual property are not restricted by the number of online outlets from which they can distribute their product.

Key actions required for Ireland include:

- ▶ Examine how online distribution channels for content such as music, film and books can be kept open, particularly in the context of competition law, the application of the licensing provisions of the Copyright and Related Rights Act, 2000, and with the rights afforded to rights-holders (including online distributors) by current EU and international law.
Action: Department of Enterprise, Trade and Employment, the Competition Authority

⁵⁵ Of the 204,000 complaints compiled by the US Federal Trade Commission in 2001, 42per cent involved identity theft. Source: Wired.com, 23 January 2002.

⁵⁶ At 41per cent, this represents lost retail revenues of over \$77m. Source: Business Software Alliance.

Consumer Protection

Adequate consumer protection is critical if consumers are to trust the Internet as a reliable way of purchasing goods and services. Survey evidence to date indicates that the principle of caveat emptor (let the buyer beware) applies strongly to the Internet (see section 4.2 on cybercrime). Consumers need to know what their rights are when purchasing online, that methods for making payments are secure and that there are effective means of redress available to them if something goes wrong. Consumers are also concerned about the privacy of personal data, particularly what data is collected about them, how it is kept, how it is used and whether it is distributed to others.

There are a range of initiatives underway at EU level and at national level by Government, business, and consumer organisations to develop e-commerce by promoting consumer trust. Primary responsibility is with business, and there is considerable scope for businesses to promote consumer confidence through the development of codes of conduct and 'trust mark' schemes.

Key actions required for Ireland include:

- ▶ Businesses should be proactive in informing consumers of the consumer regulation that exists, their commitment to comply with it and their willingness to resolve disputes through Alternative Dispute Resolution (ADR).
Action: Business
- ▶ Given the broad array of consumer protection initiatives underway in differing jurisdictions, it is necessary a overarching and cohesive message is communicated to consumers to promote confidence.
Action: Department of Enterprise, Trade and Employment, business, and consumer organisations
- ▶ Assess the possible role of an online ombudsman in providing a conciliation service between consumers and firms trading over the Internet and in adjudicating any disputes arising.
Action: Department of Enterprise, Trade and Employment

5 Conclusion

Many countries are introducing legislation to ensure that business and consumers can leverage the benefits that developments in ICT and e-business offer for economic and social progress. This report has reviewed existing Irish law and outstanding amendments required from international treaties and EU law, with a view to identifying possible reforms that would give Ireland a competitive advantage in an increasingly challenging global marketplace. A number of key reforms have been identified that could have a positive effect similar to that achieved following the passage of Ireland's Electronic Commerce Act, 2000.

Appendix I: Summary of Actions Required

The review identified a number of actions that Ireland can take to boost its competitive advantage in relation to the following national priorities:

- ▶ Further development of the e-business and research capabilities of companies (electronic property);
- ▶ Further attraction of foreign direct investment and the development of indigenous enterprise;
- ▶ Wider development of the knowledge economy.

I Factors Conducive to the Development of e-Property

1 e-Courts

- ▶ Provision of advice to the Courts Service on the relative merits to the enterprise sector of a specialist technology court.
Action: Department of Enterprise, Trade and Employment, the Development Agencies
- ▶ Considering whether specific legislation is required to amend the Court Acts to allow for the establishment of specialist courts in Ireland as Divisional Courts of the High Court to take on specialised types of e-business related litigation – for example, patents and copyright.
Action: Department of Justice, Equality and Law Reform, Courts Service
- ▶ If developed, a specialist IP/IT Court should draw up its own specialised case management procedures, as recommended in the *Sixth Report of the Working Group on a Courts Commission*. This could take place on a pilot scheme basis.
Action: Courts Service
- ▶ If specialised IP/IT Courts are developed in courts of local and limited jurisdiction, then appropriate procedures must be put in place to ensure that appeals taken from those courts will also be heard in a specialised forum.
Action: Courts Service
- ▶ Encouragement should be given to the creation of a corpus of specialised judges trained in technology law and intellectual property law who would automatically be assigned to such specialist cases.
Action: Courts Service
- ▶ High Court cases in information technology or intellectual property should be directed towards judges who have expressed an interest in these types of cases, or have recognised expertise to hear cases of this type.
Action, Courts Service
- ▶ The development of a wider pool of expertise should be promoted in the legal profession in order to deal with e-commerce dispute resolution.
Action: Department of Justice, Equality and Law Reform

- ▶ Active encouragement should be given to the use of electronic communications and pleadings in the courts.

Action: Courts Service

- ▶ Providing the resources to build a technology-enabled courtroom, which makes the necessary hardware, software and presentation facilities available to all participants.

Action: Courts Service

2

Alternative Dispute Resolution

- ▶ As part of a twin-track process, the development of online arbitration systems for both business-to-business (B2B) and for business-to-consumer (B2C) e-commerce should be encouraged. Progress in each of these areas will promote business and consumer trust in electronic transactions, and reinforce Ireland's attractiveness as an international centre for dispute resolution.

Action: Department of Enterprise, Trade and Employment, Department of Justice, Equality and Law Reform

- ▶ If ADR is to be a practical and cost-effective means of solving disputes relating to e-commerce, then it should be carried out electronically, as happens with domain name disputes under rules developed by the Internet Corporation for Assigned Names and Numbers (ICANN). A review should be undertaken of the technological requirements for e-ADR.

Action: Department of Enterprise, Trade and Employment, Department of Communications, Marine and Natural Resources

- ▶ If the Irish Courts are to operate as an effective mechanism for the appeal and review of e-ADR, then the electronic systems used will have to be integrated or shared. Mechanisms by which the online ADR and the e-Courts (IT/IP Court) could be integrated, building upon the 27th Interim Report of the Committee on Court Practice and Procedure, should be examined. For example, making a technology-enabled courtroom available for online arbitration cases when the Courts did not require the courtroom (such as during the times when the courts are on vacation) might help offset its building costs.

Action: Department of Justice, Equality and Law Reform

- ▶ As Ireland already has a body of trained arbitrators, a review should be undertaken of how this expertise could be expanded at all levels of the Irish Court system, and how supply could be increased.

Action: Department of Justice, Equality and Law Reform

- ▶ As the use of e-ADR by e-government services would encourage the development of Irish expertise in this area and would facilitate the resolution of disputes between State and citizen, the Government should develop its own standards for e-ADR, which industry and commercial bodies could then apply.

Action: Government

3

Patents

- ▶ Ireland needs to be proactive in the formulation of an EU-wide patent policy which is assessing the business merits of allowing software and 'business methods' to be patented and seeks to reduce the costs of issuing patents. The EU is currently considering a Proposal for a Directive on the Patentability of Computer-Implemented Inventions.

Action: Department of Enterprise, Trade and Employment

- ▶ The Proposal for a Directive on the Patentability of Computer-Implemented Inventions will further harmonise national patent laws, which should reduce ambiguities in the implementation of the current legislation that arise due to the complex and diverse nature of cases. In the future, it will be critical that the courts have a strong understanding of the role of patents, the capacity of software to be innovative, and the potential benefits and costs of seeking patents. Ireland should examine how it can provide as much protection as possible to the creators of intellectual property rights in these subject matters, in the context of its existing international commitments.
Action: Department of Enterprise, Trade and Employment
- ▶ As divergences have emerged in how different EU states interpret the European Patents Convention, the creation of a Community Intellectual Property Court has been proposed as a remedy. Such a court has also been called for in order to reduce the costs of IP litigation, as high costs are discouraging the use of the system, other than by large organisations. If such a court should be established, and depending on the structure that this proposed court would adopt, then the Government should seek to have the Court of First Instance of the proposed Community Intellectual Property Court based in Ireland. Despite its limited domestic market, there may be significant opportunity for Ireland to develop a critical mass of e-business law expertise.
Action: Department of Enterprise, Trade and Employment
- ▶ Irish researchers and entrepreneurs should be made aware of how they can protect their ideas. Different strategies may be suitable for different jurisdictions, given the differences between European and US patent law. One example is defensive publishing, where details of the idea or suggestion are published. This means that even if a rival patents a similar idea, the fact that it has been previously published can be used to set aside the patent or deny any attempt to seek damages.
Action: Enterprise Ireland, the Enterprise sector
- ▶ If Irish researchers and entrepreneurs have definite prospects/plans for commercialising their intellectual property in the US and the resources to actively pursue such plans, they should be informed of their options in relation to patenting a computer-implemented invention or business concept in the US Patent and Trademark Office (USPTO). Patenting ideas at the USPTO would only provide protection in the US, and would not extend to Europe. However, as many indigenous firms, particularly in the software industry, primarily focus on the US market, patenting with USPTO should be considered.
Action: Enterprise Ireland, business associations

4 Copyright of e-Property

- ▶ Ireland is required to implement the Directive on the Harmonisation of Certain Aspects of Copyright and Related Rights in the Information Society by the end of 2002. This presents an opportunity to re-examine all the provisions of the Copyright and Related Rights Act, 2000 to ensure that its provisions confer the maximum advantage on Irish authors and investors.
Action: Department of Enterprise, Trade and Employment
- ▶ Certain provisions of the Copyright and Related Rights Act, 2000 should be reviewed to limit criminal liability relating to Internet use. While recognising that this Act has been developed in tandem with international agreements, it is felt that a review of the application of Irish law should be undertaken to ensure that companies are not liable for the content of websites that have hypertext links from their sites, unless the site is specifically designed as a portal to inappropriate material such as pirated music or software.
Action: Department of Enterprise, Trade and Employment

- ▶ The Copyright and Related Rights Act, 2000 was developed as traditional media such as music were moving online. It will be necessary in the future to ensure that the legislation is updated to ensure it is technology neutral, as new types of content and intellectual property move online – for example, the digital distribution of films.

Action: Department of Enterprise, Trade and Employment

5 Theft of Confidential Information

- ▶ The creation of an offence of stealing confidential information should be examined, as Irish law does not specifically recognise any offence of theft of information.

Action: Department of Justice, Equality and Law Reform.

6 Domain Names

- ▶ Undertake an analysis of benefits of creating subdomains of the .ie domain name such as the successful .co.uk subdomain for UK-based companies, or the newly created .me.uk domain for individuals.

Action: Department of Communications, Marine and Natural Resources, The Irish Domain Registry

- ▶ Consider the possibility of introducing an Irish arbitration service such as that provided by NOMINET in the UK or as recommended for the Dutch domain (.nl). The IE Domain Registry (IEDR) should be encouraged to maintain the discussions it has initiated with the World Intellectual Property Organization (WIPO) in this regard.

Action: Department of Communications, Marine and Natural Resources

II Factors Conducive to Enterprise Promotion

1 Stamp Duty

- ▶ Evaluating the benefits and costs of removing the 6 per cent stamp duty on intellectual property in Ireland. This abolition could be achieved by way of specific exemption from Irish stamp duty along the lines of that introduced in 1992 in respect of certain financial services instruments in the context of the then developing financial services/IFSC sector.

Action: Department of Finance, Revenue Commissioners

2 Taxation of Online e-Commerce Revenues (VAT)

- ▶ While many of these issues are being decided at a European/ transnational level, it is critical that the Government and the development agencies continue to monitor the situation and to assess the implications for the enterprise sector in Ireland.

Action: Department of Enterprise, Trade and Employment, Forfás, IDA Ireland, Enterprise Ireland

3 Internet Service Providers (ISPs)/Internet Data Centre (IDC) Liability

- ▶ Implementation of the Directive of the Legal Aspects of Electronic Commerce into Irish law in order to clarify the duties and liabilities of ISPs/ IDCs in transmitting, storing and hosting information.

Action: Department of Enterprise, Trade and Employment

- ▶ Assessment of ISP liability under the Electronic Commerce Act, 2000, the Criminal Justice Act, 2001 and other acts as appropriate, to ensure that the legitimate rights of Government, businesses, and the consumers are balanced and protected in a coherent and consistent manner.

Action: Department of Communications, Marine and Natural Resources, Department of Justice, Equality and Law Reform

4

Copyright

- ▶ The importance of the ICT sector to the Irish economy must be recognised when Ireland implements Article 5 of the EU Directive on the Harmonisation of Certain Aspects of Copyright and Related Rights in the Information Society into law. In this context, the onus should remain on the copyright holder to store, distribute and sell its products in a manner which protects its rights.
Action: Department of Enterprise, Trade and Employment

5

Employment Law and Restraint of Trade Clauses

- ▶ With approximately 100,000 people employed in the ICT sector in Ireland, it may be useful to discuss with business, trade unions and employees their views on Ireland's more restrictive practices, and if required, assess whether suitable amendments could be made to Irish employment law.
Action: Department of Enterprise, Trade and Employment

6

e-Privacy

- ▶ The policy on e-privacy needs to be clarified; the Electronic Commerce Act, 2000 suggests that Ireland is strongly in favour of e-privacy, but the delay in transposing the 1995 Directive would imply otherwise.
Action: Government
- ▶ As Ireland has to implement the Data Protection Directive, 1995, it should ensure that this is done in the most pro-business way possible. Given the potential costs and compliance burden arising under this Directive, it is important that the legislation for introducing the Directive be subjected to the widest possible consultation process so as to maximise input from business, the legal profession, consumer groups and other interested parties.
Action: Department of Justice, Equality and Law Reform
- ▶ Until the EU Data Protection Directive 1995 is implemented, comprehensive guidelines should be published along the lines of those published by the UK Data Protection Registrar. The availability of the guidelines online would assist businesses in assessing and meeting their obligations under Irish data protection law.
Action: Department of Justice, Equality and Law Reform

7

e-Business – Sectoral Measures.

Ireland should examine provisions of its laws that relate to specific sectors such as e-money, e-payments, and advertising on the Internet.
Action: Government

III

The Development of the Knowledge Economy in Ireland

1

e-Government

- ▶ A review should be undertaken of how data collected through new e-government services such as Reach or e-Broker will be analysed by state agencies, and how this will affect the implementation of the EU Data Protection Directive of 1995.
Action: Reach

- ▶ Using encryption technology, examine options for the electorate to cast its votes electronically by PC, digital TV or through a mobile phone, and as appropriate review electoral law to assess the procedural changes required for Internet voting to be introduced.
Action: Department of the Environment and Local Government

2 CyberCrime

- ▶ Giving priority to the implementation of the Council of Europe's Convention on Cybercrime to improve the legal protection given to Irish consumers, businesses, institutions and service providers.
Action: Department of Justice, Equality and Law Reform
- ▶ Addressing 'denial of services attacks' through the implementation of the Convention on Cybercrime. Irish legislation currently does not address this problem, which is one of the most common forms of online attack. It involves the bombarding of Internet servers with messages so that legitimate users cannot communicate with the website, as systems become overloaded and crash.
Action: Department of Justice, Equality and Law Reform
- ▶ An offence of 'assuming another's identity or to pose as an identified third person for the purpose of making a gain or causing a loss to another' should be created. (The US Treasury's Financial Crimes Enforcement Network has reported a significant rise in the number of 'identity theft' crimes in 2000.) The definition of such an offence could be developed further to include the invention of an identity.
Action: Department of Justice, Equality and Law Reform
- ▶ As part of the implementation of the Convention on Cybercrime, Ireland needs to review all criminal offences which apply to the Internet. The objective of this review would be to examine the need for updated and technology-neutral laws to facilitate the effective investigation and prosecution of criminal offences related to computer systems and data. Penalties for cybercrime, and in particular financial penalties, should be increased.
Action: Department of Justice, Equality and Law Reform
- ▶ The implications of the Proposal for a Council Framework Decision on Attacks against Information Systems should be examined.
Action: Department of Justice, Equality and Law Reform
- ▶ The resources required to credibly enforce such legislation should be quantified. This is important, as it would demonstrate the Irish Government's commitment to the enforcement of its legislative provisions.
Action: Department of Justice, Equality and Law Reform

3 Competition Policy

- ▶ Examine how online distribution channels for content such as music, film and books can be kept open, particularly in the context of competition law, the application of the licensing provisions of the Copyright and Related Rights Act, 2000, and with the rights afforded to rights-holders (including online distributors) by current EU and international law.
Action: Department of Enterprise, Trade and Employment, the Competition Authority

Consumer Protection

- ▶ Businesses should be proactive in informing consumers of the consumer regulation that exists, their commitment to comply with it and their willingness to resolve disputes through Alternative Dispute Resolution (ADR).
Action: the enterprise sector
- ▶ Given the broad array of consumer protection initiatives underway in differing jurisdictions, it is necessary a overarching and cohesive message is communicated to consumers to promote confidence.
Action: Department of Enterprise, Trade and Employment, business, and consumer organisations
- ▶ Assess the possible role of an online ombudsman in providing a conciliation service between consumers and firms trading over the Internet and in adjudicating any disputes arising.
Action: Department of Enterprise, Trade and Employment

Appendix II: Overview of Results from Individual Jurisdictions

Source: A & L Goodbody, e-Commerce Comparative
Study for the Department of Public Enterprise, 28th March 2001.

Table 1: Overview of Results from Individual Jurisdictions

	Ireland	UK	Netherlands	Sweden	Finland	Hungary	Israel	Singapore	India	Australia	Canada	California	Delaware
e-Commerce legislation?	✓	✓	X	X	X	X	X	✓	✓	✓	✓	✓	✓
Proposals for further reform?	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	✓	✓	✓
Business community satisfied with the e-business environment?	✓	✓	X	✓	✓	X	X	✓	✓	✓	✓	✓	✓
Electronic Contract													
Any distinctions between B2B and B2C?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Any initiatives in relation to e-government?	✓	✓	✓	X	✓	✓	✓	✓	✓	✓	✓	✓	✓
Any specific measures for e-banking?	✓	X	✓	X	X	✓	✓	✓	✓	✓	✓	✓	✓
Specific e-signature Legislation?	✓	✓	X	✓	X	X	X	✓	✓	✓	✓	✓	✓
Does legislation require private keys to be made available?	X	✓	X	✓	X	X	X	✓	✓	X	X	X	X
Import/export of encryption technology restricted?	X/✓	X/✓	X/✓	✓/✓	X/✓	✓/✓	✓/✓	X/X	✓/X	X/✓	X/✓	X/X	X/X
Domain names controlled by private organisations?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Domain Name dispute resolution systems?	X	✓	X	X	X	✓	X	X	X	✓	X	✓	✓
Specific legislation regarding ISP Liability?	X	X	X	X		X	X	X	X	✓	X	X	X
Consumer Protection													
Do offline consumer protection laws apply to on-line transactions?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

✓	Yes
X	No

	<i>Ireland</i>	<i>UK</i>	<i>Netherlands</i>	<i>Sweden</i>	<i>Finland</i>	<i>Hungary</i>	<i>Israel</i>	<i>Singapore</i>	<i>India</i>	<i>Australia</i>	<i>Canada</i>	<i>California</i>	<i>Delaware</i>
Do national consumer protection laws apply to internet/e-commerce transactions concluded where the consumer (and not the supplier) is in the jurisdiction?	✓	✓	✓	✓	✓	X	✓	✓	✓	✓	✓	✓	✓
Are there any products/services that are not permitted to be advertised on the internet?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Is there any consumer on-line dispute resolution mechanism in place or envisaged?	X	✓	X	X	X	X	X	✓	✓	X	✓	✓	X
Cyber-crime													
Has cybercrime been identified as a barrier to e-business?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Is there specific legislation relating to computer related crime?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Is there legislation allowing for State interference with email?	X	✓	X	✓	✓	✓	✓	X	X	✓	✓	X	✓
Data Protection:													
Is Data Protection regulation a major concern in the context of electronic commerce?	✓	✓	✓	✓	✓	✓	✓	X	X	✓	✓	X	X
Is there a specific right to privacy enshrined in law?	✓	✓	✓	X	✓	✓	✓	X	✓	✓	✓	✓	✓
Is there specific data protection legislation in place?	✓	✓	✓	✓	✓	✓	✓	X	X	✓	✓	✓	✓
Does a website provider have to register with any controlling body in order to process personal data?	✓	✓	✓	✓	✓	✓	✓	X	X	X	X	X	X
Can a website provider sell personal data about website users to third parties without the consent of the subject?	X	X	X	X	X	X	X	4	X	X	X	X	X
If a website provider is providing information to profile its customer base in order to target advertising on its website, is this regulated?	✓	✓	✓	✓	X	✓	✓	✓	X	X	✓	✓	X
Taxation:													
Has internet specific tax legislation been adopted?	X	X	X	X	X	X	X	4	X	X	X	✓	X
Any transfer tax or stamp duty on intellectual property?	✓	X	X	X	X	X	X	X	X	✓	✓	✓	✓

Table 2: Overview of Results from Individual Jurisdictions - Advanced Models

	<i>Ireland</i>	<i>UK</i>	<i>Netherlands</i>	<i>Sweden</i>	<i>Finland</i>	<i>Hungary</i>	<i>Israel</i>	<i>Singapore</i>	<i>India</i>	<i>Australia</i>	<i>Canada</i>	<i>California</i>	<i>Delaware</i>
Cyber-crime							✓		✓				✓
Tax Regime		✓		✓				✓	✓			✓	
e-money/e-banking						✓		✓					✓
e-government					✓	✓		✓				✓	
Company Law Modernisation													✓
Regulatory Structures								✓					

Appendix III

In transposing the Directive of the Legal Aspects of Electronic Commerce 1999 into Irish law, it is necessary to ensure that ISPs be exempt from liability under the following circumstances where they:

1. **Act as a “Mere Conduit”:**
 - a. Does not initiate the transmission;
 - b. Does not select the receiver of the transmission; and
 - c. Does not select or modify the information contained in the transmission

2. **Store the flow of information (caching), provided that the ISP:**
 - a. Does not modify the information;
 - b. Complies with conditions on access to the information;
 - c. Complies with rules regarding the updating of the information, specified in a manner widely recognised and used by industry;
 - d. Does not interfere with the lawful use of technology, widely recognised and used by industry, to obtain data on the use of information; and
 - e. Acts expeditiously to remove or to disable access to the information, it has stored upon obtaining actual knowledge of the fact that the information at the initial source of the transmission has been removed from the network, or access to it has been disabled, or that a court or an administrative authority has ordered such removal or disablement.

3. **Host material, provided that the ISP:**
 - a. Does not have actual knowledge of illegal activity or information and, as regards claims for damages, is not aware of facts or circumstances from which the illegal activity or information is apparent;
 - b. Upon obtaining such knowledge or awareness, the ISP acts expeditiously to remove or to disable access to the information;
 - c. ISP’s cannot be placed under a general obligation to monitor.

Appendix IV: e-Business Related Legislation

There is no precise definition of what constitutes e-Business related Legislation. Increasingly as e-Business becomes integrated in normal business processes, all business related legislation will be important. For this report, Forfás commissioned Denis Kelleher to review relevant Irish law and outstanding amendments required from international treaties and EU law, with a view to identifying possible reforms that would give Ireland a competitive advantage in the areas of ICT and e-Business.

The Irish regulatory environment for e-business and ICT's can be divided into three separate categories: Irish legislation; European legislation; and International agreements and treaties.

1

Irish Legislation:

Key items of existing e-business legislation includes:

- ▶ The Data Protection (Amendment) Bill 2002
- ▶ No. 20/2002: The Communications Regulation Act, 2002
- ▶ No. 50/2001: The Criminal Justice (Theft and Fraud Offences) Act, 2001
- ▶ No. 38/2001: The Electoral Amendment Act, 2001
- ▶ No 39/2001: The Industrial Designs Act, 2001
- ▶ No. 4/2001: The Broadcasting Act, 2001
- ▶ No. 28/2000: The Copyright and Related Rights Act, 2000
- ▶ No. 27/2000: The Electronic Commerce Act, 2000
- ▶ No. 22/1998 Child Trafficking and Pornography Act, 1998
- ▶ No. 14/1998: The Arbitration (International Commercial) Act, 1998
- ▶ No. 6/1996 The Trademarks Act, 1996
- ▶ No. 1/1992: The Patents Act, 1992
- ▶ No. 31/1991 The Criminal Damage Act, 1991

2

European Legislation:

In an integrated regulatory environment, European Union legislation will have the greatest impact upon the Irish regulatory environment. Relevant items of legislation include:

2.1

Intellectual Property:

- ▶ Directive 2001/84/EC of the European Parliament and of the Council of 27 September 2001 on the resale right for the benefit of the author of an original work of art.

- ▶ Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society.
- ▶ on Satellite Broadcasting and cable retransmission.
- ▶ Proposal for a Directive of the European Parliament and the Council on the Patentability of Computer-implemented inventions.
- ▶ Proposal for a Council Regulation on the Community patent, COM 2000 412.

2.2

e-Commerce:

- ▶ Directive (95/46/EU) on the Protection of individuals with regard to the free processing of personal data and on the free movement of such data ("The Data Protection Directive").
- ▶ Directive 1999/93/EC of the European Parliament and of the Council of 13 December 1999 on a Community framework for electronic signatures.
- ▶ Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market ("Directive on electronic commerce").
- ▶ Directive 97/7/EC of the European Parliament and of the Council of 20 May 1997 on the Protection of Consumers in respect of Distance Contracts.
- ▶ Amended proposal for a Directive on distance marketing of consumer financial services.
- ▶ Commission Recommendation 92/295/EEC of 7 April 1992 on codes of practice for the protection of consumers in respect of contracts negotiated at a distance.
- ▶ Council Directive 85/577/EEC of 20 December 1985 to protect the consumer in respect of contracts negotiated away from business premises.
- ▶ Directive (97/55/EC) of European Parliament and of the Council of 6 October 1997 amending Directive 84/450/EEC concerning misleading advertising so as to include comparative advertising.
- ▶ Council Directive (84/450/EEC) of 10 September 1984 relating to the approximation of the laws, regulations and administrative provisions of the Member States concerning misleading advertising.

2.3

e-Government:

- ▶ Decision of the European Parliament and Council of 12 July 1999 adopting a series of actions and measures in order to ensure interoperability of and access to trans-European networks for the electronic interchange of data between administrations.
- ▶ Proposal for a regulation of the European Parliament and of the Council on the common procurement vocabulary (CPV)⁵⁷.
- ▶ Communication on creating a EU framework for the exploitation of public sector information⁵⁸.
- ▶ Commission Recommendation of 4 April 2001 on the principles for out-of-court bodies involved in the consensual resolution of consumer disputes (2001/310/EC).
- ▶ Communication from the Commission on "widening consumer access to alternative dispute resolution", 4 April 2001.
- ▶ Communication from the Commission on the "out-of-court settlement of consumer disputes", 30 March 1998.

⁵⁷ Brussels, 3.8.2001 COM(2001) 449 final 2001/0179 (COD)

⁵⁸ Brussels, 23.10.2001 COM (2001) 607 final

Commission Recommendation on the principles applicable to the bodies responsible for out-of-court settlement of consumer disputes (98/257/CE).

2.4

Telecommunications:

- ▶ Decision 676/2002/EC of the European Parliament and of the Council of 7 March 2002 on a regulatory framework for radio spectrum policy in the European Community (Radio Spectrum Decision).
- ▶ Regulation No 2887/2000 of the European Parliament and of the Council on Unbundled Access to the Local Loop.
- ▶ Proposal for a Directive of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services Com(2000)393.
- ▶ Proposal for a Directive of the European Parliament and of the Council on universal service and users' rights relating to electronic communications networks and services; Com(2000)384.
- ▶ Proposal for a Directive of the European Parliament and of the Council on access to, and interconnection of, electronic communications networks and associated facilities; Com(2000)385.
- ▶ Proposal for a Directive of the European Parliament and of the Council on the authorisation of electronic communications networks and services; Com(2000)386.

3

International Treaties and Regulatory Environment:

The Internet is a global network, therefore global treaties have a particular impact upon its development. There are a number of existing International Agreements which will impact upon how the Internet develops in Ireland, and these include:

- ▶ The Council of Europe's Cybercrime Convention
- ▶ The Council of Europe's Recommendation on self Regulation concerning Cyber-content
- ▶ International Treaties on Intellectual property such as European Patents Convention and the Berne Copyright Convention.
- ▶ EU/USA Safe Harbour Agreement on Data Protection.

There are also a number of draft International conventions, whose future possible impact upon Ireland's regulatory environment would have to be monitored:

- ▶ The Council of Europe's Draft Declaration on Freedom of Communication on the Internet
- ▶ The Proposed Protocol to the Convention on Cybercrime on the criminalisation of acts of a racist or xenophobic nature committed through computer systems
- ▶ Proposed World Intellectual Property Organization (WIPO) Treaty on the Protection of Broadcasting Organisations
- ▶ Proposed amendments to Hague Convention

Another key area of International Internet regulation that needs to be examined on an ongoing basis is the structures and regulation of ICANN (the Internet Corporation for Assigned Names and Numbers).

4 Developments in other Jurisdictions

4.1 The UK

The UK has begun the process of reviewing all legislation to see whether or not it creates a regulatory environment that promotes e-business in the UK. The UK Government is committed to making the UK one of the world's leading knowledge economies. To this end it has commenced updating existing legislation and regulation. At the same time it has developed principles to ensure that any new proposals:

- ▶ do not hinder e-commerce, and
- ▶ can work effectively in the e-world.

These principles are:

1. Always establish the policy consequences for e-commerce;
2. Avoid undue burdens on e-commerce, such as by carrying out a "Regulatory Impact Assessment";
3. Consider self and co-regulatory options;
4. Consult fully on e-commerce implications;
5. Regulation should be technology neutral in its effects;
6. Check that proposals are enforceable in an electronic age;
7. Take account of the global market place - the EU and international angle;
8. Consider the implications for e-Government.

4.2 The EU

The EU has given itself the objective of becoming the most competitive and dynamic knowledge-based economy in the world at the Lisbon European Council. The burden of regulation in Europe is considerable, estimated at between 2 per cent and 5 per cent of European GDP⁵⁹. The Mandelkern Report in November 2001 suggested ways in which the EU could alter its regulatory process to help Europe attain this goal. This made recommendations in the following areas:

1. Policy implementation options;
2. Impact assessment;
3. Consultation;
4. Simplification;
5. Access to regulation;
6. Structures;
7. Implementation of European regulation.

4.3 Ireland

Ireland is conducting a general review of its own regulatory structures and mechanisms, following the publication of a report from the OECD (Regulatory Reform in Ireland, April 2001). Details can be found at www.betterregulation.ie

⁵⁹ Mandelkern Report, 13th November 2001, p. i.

Publication List

The 4th Framework Programme in Ireland	April 2001
Commercialisation of Publicly Funded Research <i>Irish Council for Science, Technology & Innovation (ICSTI)</i>	April 2001
The Third Report of the Expert Group on Future Skills Needs <i>Responding to Ireland's growing skill needs</i>	July 2001
Forfás Annual Report 2000	August 2001
Annual Employment Survey 2000	September 2001
Statement of Outward Direct Investment	October 2001
State Expenditure on Science & Technology, 2000	December 2001
Research and Development in the Public Sector, 2000	December 2001
Key Waste Management Issues in Ireland	December 2001
The Competitiveness Challenge <i>National Competitiveness Council</i>	December 2001
The Annual Competitiveness Report, 2001 <i>National Competitiveness Council</i>	December 2001
The Labour Market Participation of Over 55s in Ireland <i>Expert Group on Future Skills Needs / National Competitiveness Council</i>	January 2002
International Trade and Investment Report	February 2002
Biotechnology <i>Irish Council for Science, Technology & Innovation (ICSTI)</i>	February 2002

Enlargement of the European Union <i>Forfás Submission to the National Forum on Europe</i>	February 2002
Broadband Investment in Ireland	March 2002
Research & Development in the Business Sector 1999	May 2002
Comparative Consumer Prices in the Eurozone & Consumer Price Inflation in the Changeover Period	June 2002
Forfás Annual Report 2001	July 2002
e-Business: Where we are and where do we go from here	August 2002
Measuring and Evaluating Research Irish Council for Science, Technology & Innovation (ICSTI)	August 2002

Functions of Forfás

Is é Forfás an bord náisiúnta um polasaí agus comhairle le haghaidh fiontraíochta, trádála, eolaíochta, teicneolaíochta agus nuála. Is é an comhlacht é a bhfuil comhactaí dlíthiúla an stáit maidir le cur-chun-cinn tionscail agus forbairt teicneolaíochta dílsithe ann. Is é an comhlacht é freisin trína dciomnaítear cumhachtaí ar Fhiontraíocht Éireann le tionscail dúchais a chur chus cinn agus ar ghníomhaireacht Forbartha Tionscail na hÉireann (GFT Éireann) le hinfheistiocht isteach sa tír a chur chun tosaigh. Is iad feighmeanna Fhorfáis:

- ▶ comhairle a chur ar an Aire ó thaobh cúrsaí a bhaineann le forbairt tionscail sa Stát
- ▶ comhairle maidir le forbairt agus comhordú polasaithe a chur ar fáil d'Fhiontraíocht Éireann, d'GFT Éireann agus d'aon fhoras eile dá leithéid (a bunaíodh go reachtúil) a d'fhéadfadh an tAire a ainmniú trí ordú
- ▶ forbairt na tionsclaíochta, na teicneolaíochta, na margaíochta agus acmhainní daonna a spreagadh sa Stát
- ▶ bunú agus forbairt gnóthas tionsclaíoch ón iasacht a spreagadh sa Stát, agus
- ▶ Fiontraíocht Éireann agus GFT Éireann a chomhairliú agus a chomhordú ó thaobh a gcuid feidhmeanna.

Forfás is the national policy and advisory board for enterprise, trade, science, technology and innovation. It is the body in which the State's legal powers for industrial promotion and technology development have been vested. It is also the body through which powers are delegated to Enterprise Ireland for the promotion of indigenous industry and to IDA Ireland for the promotion of inward investment. The broad functions of Forfás are to:

- ▶ advise the Minister on matters relating to the development of industry in the State
- ▶ to advise on the development and co-ordination of policy for Enterprise Ireland, IDA Ireland and such other bodies (established by or under statute) as the Minister may by order designate
- ▶ encourage the development of industry, technology, marketing and human resources in the State
- ▶ encourage the establishment and development in the State of industrial undertakings from outside the State, and
- ▶ advise and co-ordinate Enterprise Ireland and IDA Ireland in relation to their functions.

Board Members

Peter Cassells	<i>Chairman</i>
Martin Cronin	<i>Chief Executive, Forfás</i>
Sean Dorgan	<i>Chief Executive, IDA Ireland</i>
Dan Flinter	<i>Chief Executive, Enterprise Ireland</i>
Paul Haran	<i>Secretary General, Department of Enterprise, Trade & Employment</i>
Professor Michael Hillery	<i>Chair of Manufacturing Engineering University of Limerick</i>
Rody Molloy	<i>Director General, FÁS</i>
William Murphy	<i>Partner, Tynan Dillon and Company</i>
Feargal O'Rourke	<i>Partner, Taxation Pricewaterhouse Coopers</i>
Professor Yvonne Scannell	<i>Professor at Law, Trinity College</i>
Toni Wall	<i>Managing Director, Wall-2-Wall Ltd</i>
Jane Williams	<i>Managing Director, The Sia Group Ltd</i>
David Lovegrove	<i>Secretary to the Board</i>

