IRELAND COULD BECOME WORLD CENTRE FOR DIGITAL DISTRIBUTION OF SOFTWARE - FORFAS

Major New Report Highlights Policy Requirements to enable Ireland Seize the Initiative on Electronic Commerce

'Ireland has the potential to become a world centre for digital distribution of software over the Internet and a niche player in key areas of electronic commerce' said John Travers, CEO Forfas, when he presented a major new e-commerce policy action report entitled *E-Commerce-The Policy Requirements* to the Tánaiste and Minister for Enterprise, Trade and Employment, Mary Harney, T.D. The report was prepared at the request of the Tanaiste and published by Forfás today (29 July 1999).

'Ireland has a strong position in sectors that will be key drivers of the e-commerce revolution. Initiatives have already been taken to build the infrastructures in tele-communications and skills required for e-commerce. This report complements on earlier work in these areas by Forfás by focusing, for the first time, on how to make best use of the infrastructure now being put into place. It examines the sectoral implications of e-commerce and sets out the actions that need to be taken by business, development agencies and by Government to ensure that Ireland has the premier e-commerce business environment in Europe', said Mr Travers.

The report outlines the implications and emerging opportunities presented by e-commerce for a number of key sectors of the Irish economy.

Software

The development of e-commerce will create a major increase in demand for software products. This will create considerable opportunities for Irish and foreign-owned companies in Ireland.

Ireland is currently the second largest exporter of packaged software in the world. Much of the overseas activity in Ireland is in the manufacture and physical distribution of software products. As the software industry moves from physical distribution to distribution over the Internet during the next 3-5 years, there will a major opportunity for Ireland to become a world centre for these activities. There will be opportunities for overseas companies to establish their digital distribution centres in Ireland.

E-commerce will also enable existing overseas companies to move towards consolidating their marketing and technical support functions, at present located in a number of countries. Ireland can benefit from this fundamental source of change in organisational structure if it provides the infrastructure, skills and regulatory framework required.

E-commerce gives indigenous software companies a powerful tool for competing on global markets. Irish-owned software firms that currently develop software for individual customer needs (bespoke) should move up the value chain by developing, marketing and distributing niche software products using the Internet. Moving to Internet-based operations, however, will require significant investment of resources to transform existing products and processes to digital formats.

Digital Content and Intellectual Property Management

Content such as multimedia, music and education and training products are increasingly being distributed in digital format using the Internet. However, content distributed in this way is subject to unauthorised copying and misappropriation. To fully realise the major opportunities arising from "content" industries, businesses will need to find new ways of managing, controlling and

ensuring payment for the intellectual property element and for other associated payments. The consequential demand for products and processes provides major opportunities for the development of technologies which ensure <u>security</u> for digital distribution. It also provides significant opportunities in the area of the <u>management</u> of digital distribution. In this context Ireland can be positioned as an international hub for digital distribution activities.

Electronics Hardware

Major electronics corporations are moving towards the establishment of global command and control centres, which integrate the management of production and sub-supply arrangements, marketing and the management of customer relations using e-commerce technologies. Attracting these centres is of strategic importance to the future development of the electronics industry in Ireland to sustain high-income, high skill jobs as low value added technology manufacturing moves to low cost locations. Locally-based sub-suppliers to the electronics industry will need to develop the capacity to link with the <u>extranets</u> of these multinationals.

Support Services

A successful E-commerce economy requires a range of support services. These include the technologies which facilitate the development of content, electronic transactions, processing and distribution for e-commerce activities. Major opportunities are available to indigenous companies to develop products in a range of areas including content localisation, graphic design, marketing and customer database management. Irish-based firms will also be able to take advantage of outsourcing opportunities from the wide range of content industries that are now moving to distribution of their products over the Internet. The report makes clear that with a strong base of these support companies, Ireland has the potential to become a premier EU location for the digital distribution of content products.

Food

The Forfás report recommends that the development agencies encourage food companies to use *extranets*, which provide secure links from suppliers to customers, to market their products, to co-ordinate their distributions and link-up with retailers worldwide. The report encourages food companies producing non-perishable products to sell directly to consumers, new food intermediaries and the food service industry over the Internet.

Education and Training

E-commerce will have a major impact on the education and training sector, through the digital transformation of education and training products, including the conversion of existing textbooks and materials. The Internet enables distance-education courses to be delivered globally. Ireland's worldwide reputation for a high standard of education, is a distinct advantage in promoting on-line learning products. The consequence is that Irish education and training establishments will need to develop the capability to deliver education and training courses on-line. They will also need to develop strong links with the multimedia industry in Ireland in order to develop innovative content and distribution channels.

Logistics and Fulfilment

Increased parcel delivery, direct to consumers, of goods ordered over the Internet rather than through traditional retail outlets is already one of the most immediate impacts of e-commerce which is already widely happening. These distribution requirements, which must be flexible and worldwide in scope will encourage suppliers, to outsource e-commerce related logistics and fulfilment. This is particularly the case for SMEs.

E-commerce, as a result, presents a real opportunity to grow the logistics and postal services in Ireland. An Post is well placed to provide competitive logistics solutions for Irish companies engaging in business-to-consumer e-commerce. The ability of a range of other logistics providers to deliver these services to Irish

SMEs is also important. IDA Ireland should seek to attract the leading global providers to establish bases in Ireland to service their European operations. The report recommends that Irish packaging companies should be encouraged to develop a first mover advantage in designing and producing specialised packaging for e-commerce distribution.

Small Business

E-commerce will be of particular importance for small and medium sized enterprises/SMEs in Ireland. It opens enormous opportunities for businesses of different size to become global companies. The report highlights the fact that e-commerce provides small businesses with the means to overcome disadvantages of scale and geographical location. Developing an awareness of the key internet technologies and the benefits they can bring to business and training in the use of e-commerce are identified in the report as major challenges for SMEs. Businesses need to ensure that key personnel are provided with appropriate Internet training and that they develop appropriate company strategies to exploit the technologies associated with e-commerce.

BUSINESS ENVIRONMENT

Ireland needs to move quickly to develop a supportive legal and regulatory business environment for e-commerce which provides clarity and certainty. The current environment was framed with a different form of commerce in mind than is now emerging.

Certification and Trusted Third Parties

Trust is essential to all commercial undertakings, but particularly in e-commerce, where the parties to the transaction may never meet. A system is required which provides accreditation for reputable bodies to certify the existence of individuals and companies in Ireland which engage in e-commerce transactions. These accreditation and certification bodies would be required to interact with their counterparts around the world so that information on potential suppliers and

customers can be made available to Irish companies and individuals engaged in international e-commerce trading transactions.

Ireland's National Accreditation Board should quickly consider how the accreditation element of such a system can quickly be put in place.

Copyright

Copyright protection is fundamental to digital distribution of content. A Copyright Bill is being brought forward by the Department of Enterprise, Trade and Employment to be passed into legislation by the end of 1999. The legislation should be such as to facilitate the promotion of Ireland as the most secure place from which to do digital business. It should make it an offence to post Copyright material on public websites without consent, include protection for technical designs and provide sufficient powers and resources for enforcement.

Electronic Evidence and Dispute Resolution

Legislation is required to ensure the enforceability of electronic contracts. Dispute resolution procedures in respect of electronic transactions should be established. There is an opportunity for Ireland to develop as an international centre for arbitration of disputes on electronic transactions.

Unlawful interference with the business resources of Irish e-commerce users *(hacking)* can be a serious problem for companies where confidential information is involved, and should be deterred by penalties.

Skills

The recommendations of the Forfás Expert Group on Future Skills Needs, in respect of new information technology places in third level education, are being implemented. These skills are critically important for e-commerce but highly specialised IT skills are also needed in some sectors. E-commerce skills are required in key areas of management,

marketing and strategic planning. A variety of content management, multimedia and design expertise are required. At 3rd skills level modules that provide graduates with the IT and e-commerce skills to work in an e-commerce environment.

VAT

Under EU proposals the VAT rate applicable in the country of registration for e-commerce transactions would be applied to all business-to-consumer transactions. As Ireland's VAT rate of 21% is higher than some other EU countries, companies could be at a disadvantage with the lower VAT rates, in countries such as Germany with a 16% VAT rate or the UK with a 17.5% VAT rate. Companies will also consider differences in other costs, such as corporation tax, in their location decisions. This is an issue that needs to be considered urgently and resolved at national and EU level.

Development Agencies

The strategies of Ireland and IDA Ireland and Enterprise Ireland to attract new e-commerce related mobile investment and to develop the competitiveness of indigenous companies in e-commerce and to encourage new start-ups, are set out in the report. Exploiting the opportunities in e-commerce and encouraging the changeover to e-commerce by enterprises is now a major focus of agency activity and policy.

Announcing details of the report, the Chief Executive of Forfas **Mr John Travers**, *said that companies and state agencies alike need to develop detailed strategies for the effective integration of the Internet into business. "This report highlights the need for a dramatic change of approach in*

business activity when it comes to e-commerce. For firms that embrace the new technologies and new ways of doing business, the opportunities are immense. For firms that do not, the results could prove fatal", he said.

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