

All Island Competitiveness

Knowledge
capital
channels
carriers

eBUSINESS



InterTradeIreland

TRADE & BUSINESS DEVELOPMENT BODY

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FOREWORD

The economies of Northern Ireland and the Republic of Ireland share the challenge of maintaining and developing their competitiveness positions in an increasingly global market place. Until recently the two jurisdictions faced this challenge separately.

The new political framework established under the Belfast Agreement, 1998, including the North/South Ministerial Council (NSMC), and the greater political and economic stability flowing from the Agreement and its enabling legislation, provides the opportunity to place economic co-operation on a new, more strategic and cohesive plane. The establishment of *InterTradelreland*-the Trade and Business Development Body-as one of six Implementation Bodies offers a new opportunity for supporting the development of enterprise and trade on a North-South basis.

InterTradelreland recognises that better, more focused co-operation can provide the opportunity to enhance the efficiency with which scarce economic resources are used and enable the two economies to build up competitive strengths.

To advance this mutual goal of enhanced competitiveness, *InterTradelreland* is publishing this working paper as one in a series of three such papers which look at all-island competitiveness issues in the areas of Information and Communications Technology (ICT), eBusiness and Skills. The general aim of the papers is to explore areas in which a shared vision and a commonality of purpose could lead to collaborative programmes offering genuine competitive advantage for both jurisdictions.

The specific objectives of the series of three papers, as outlined are summarised below:

- Scoping the supply-side and the demand-side; analysing existing provision and capability levels;
- Identification of 'best in class'; examples/ case studies of best practice;
- Review of markets and policies; assess and describe current market forces and governmental policies/initiatives;
- Identification of 'border effect'; cross-border barriers to effectiveness and natural market development, unexploited synergies and North and South gaps;
- Identify areas of enhanced co-operation; areas where co-operation may improve the competitive performance of the specified sectors;
- Linkages with wider competitiveness agenda; consider the integration of competitiveness in each of the relevant areas; and
- Recommendations; recommendations and action required by both governments in the various time periods.

In relation to these objectives, the main aim of the present paper is to focus on those areas of eBusiness, which firstly, have a clearly all-island dimension; and secondly, which are mutually recognised as areas requiring development in the future and, as such, represent a priority for policy makers in the coming years.

Finally, we wish to emphasise that this is a working paper designed to initiate debate around crucial competitiveness issues. The views expressed are those of the authors themselves and should not necessarily be construed as those of *InterTradelreland*.

EXECUTIVE SUMMARY

This paper recognises the significant effort that governments and business development organisations have made in promoting the uptake of eBusiness by island of Ireland enterprise.

The focus of the paper has been to examine the potential for additional co-operation between the various players both North and South of the border and, to this end, has set out a number of recommendations.

eBusiness Capability

Research has indicated that the island of Ireland has a satisfactory infrastructure and a good business environment, but parts of the eBusiness equation are still lacking. However, the survey data-sets analysed showed significant variance in their figures and have tended to concentrate on the competitiveness inputs of eBusiness (access to the Internet, number of websites, etc.) rather than the outputs (contribution of eBusiness in increased sales, cost reduction, etc.)

As a result, there is some confusion as to the true uptake of eBusiness on the island of Ireland, and little or no indication of how uptake is improving overall island of Ireland competitiveness.

Recommendation: As the island of Ireland governments move forward with advancing the eBusiness capability of enterprise, an accurate and harmonised set of measures, covering both competitiveness inputs and outputs will be required to monitor and steer progress of initiatives through the island of Ireland.

Recommendation: On the subject of regulation, the processing of information is subject to the Data Protection Act. It is possible that this Act, in its current form, could act as a barrier to the development of some legitimate and innovative eBusiness applications in both the public and private sectors. Consideration should be given to establishing a process for reviewing such cases with the potential of a resultant change to the Act.

eBusiness Best Practice

On the internet there are numerous repositories, of varying quality, of eBusiness 'best practice'.

Recommendation: Investigate the feasibility of the island of Ireland public sector organisations outsourcing their on-line eBusiness best practice provision to a single well-maintained, promoted, and monitored repository.

Absence of an eBusiness strategy, linked to the overall business strategy, puts a Small and Medium-sized Enterprise (SME) at high risk of failure when it attempts to build an eBusiness capability. In addition, a well-crafted eBusiness strategy has a high risk of failure if an organisation has not identified the organisational infrastructure required to support its eBusiness applications. The wider business implications of eBusiness include:

- Processes;
- Organisation and Capabilities;
- Systems and Technology;
- Delivery and Operations; and
- Tax and Legal.

Recommendation: The island of Ireland agencies should ensure that SMEs are aware of these broader eBusiness issues. Where SME support organisations have developed their own eBusiness programmes in isolation, there is a risk of duplication of effort, together with the possibility that those SMEs participating in more than one programme may receive conflicting messages.

Awareness materials and programmes would benefit from development at a single point, in order to avoid this duplication of effort across the various agencies and to provide SMEs with a more effective awareness and education programme.

Recommendation: As the uptake of eBusiness amongst island of Ireland SMEs increases, there will be greater demands from these organisations for assistance with resolving the broader potential eBusiness issues (providing that they are made aware of the issues in the first place). A review of existing eBusiness services currently offered by the island of Ireland agencies may identify service gaps that would require filling. In addition, different areas of expertise may be identified in different agencies, leading to the possibility of skills exchange and referral arrangements between agencies.

Recommendation: Whilst the vast majority of island of Ireland enterprises are SMEs, there are a number of large organisations with a significant indigenous supplier base. Island of Ireland governments should give consideration to encouraging these organisations to develop 'supplier-friendly' eSupply Chain Management (eSCM) systems in order to reduce the effort required by SMEs to connect to such systems. This would also give participating SMEs a legitimate business reason for developing an eSupplier capability.

The Impact of the 'border effect'

In short, eBusiness is an enabler to cross-border trade. Geography becomes less important due to potential for vast improvements in the quality of information flows between an organisation and its business community. Effective deployment of eBusiness technologies is a key factor in the shift to a knowledge-driven economy. Production can be shifted to countries with lower labour costs, enabling, and sometimes forcing, organisations to focus on the higher value services such as innovation and design.

Co-operation

There is an opportunity to lever off public sector eProcurement to provide SMEs with a legitimate business reason for developing an eSupplier capability. In doing so, governments should make it as easy as possible for SMEs to connect to their eProcurement systems.

Recommendation: Consideration should be given to harmonising island of Ireland public sector eProcurement strategies to minimise the effort and maximise the benefit for SMEs connecting to public sector eProcurement systems. A key goal of public sector eProcurement strategies should be to maximise SME eBusiness trading capabilities.

Recommendation: Northern Ireland and Republic of Ireland public sector eProcurement project teams should liaise with each other to explore the possibilities of developing a common supplier interface to reduce the cost and effort required from SMEs to connect to these systems.

On the subject of life-event-based portals and authentication, the Northern Ireland initiative OnlineNI is still to be mobilised, whereas the Republic of Ireland REACH initiative is further advanced.

Recommendation: The OnlineNI project team should liaise with the REACH organisation in order to become aware of lessons learned to date in the implementation of the OASIS and BASIS portals in Republic of Ireland, together with the establishment of eGovernment registration and authorisation processes.

In the Republic of Ireland, the Freedom of Information Act came into force in 1998. In Northern Ireland, the Act is still to be ratified.

Recommendation: Northern Ireland government departments may benefit from liaising with their Republic of Ireland counterparts in order to become aware of the impact of the Freedom of Information Act on those departments and how potential increased demand for information is being managed.

A number of web-sites claiming to provide SMEs with collaborative services exist already. There is a risk that as the number of such sites increases, each underlying SME database will be maintained in isolation from the others. This can cause fragmentation of the SME user community with a resultant reduction in the number of collaborative opportunities.

Recommendation: Liaise with the Republic of Ireland and Northern Ireland agencies currently running collaborative websites to explore the possibility of linking the underlying SME/research source/trading partner databases to increase the potential for identifying North-South collaborative opportunities.

Making it Happen

In the short term, there are a number of enabling actions that can be taken in order to mobilise/further progress the recommendations:

- Agree with the Department of Enterprise, Trade and Employment (DETE) in the Republic of Ireland and the Department of Enterprise, Trade and Investment (DETI) in Northern Ireland the need for an accurate harmonised set of measures for monitoring the impact of eBusiness on island of Ireland competition;
- Draft initial set of measures for consultation with the departments and various organisations involved in eBusiness promotion;
- Assess the willingness of agencies, Chambers of Trade, etc., to collaborate in the areas of:
 - Single eBusiness best practice repository;
 - Single production point for production of eBusiness awareness/ education materials for SMEs; and
 - Shared SME/research source/trading partner databases;
- Carry out an eBusiness service provision audit among the various agencies, Chambers of Trade, etc., in order to identify:
 - Sources of service provision;
 - Service gaps; and
 - Opportunities for referral arrangements between these organisations;
- Liaise with both governments to assess willingness for collaboration in the areas of:
 - Data Protection Act issues;
 - Freedom of Information Act issues;
 - eProcurement; and
 - Electronic Service Delivery interfaces with the citizen and businesses.

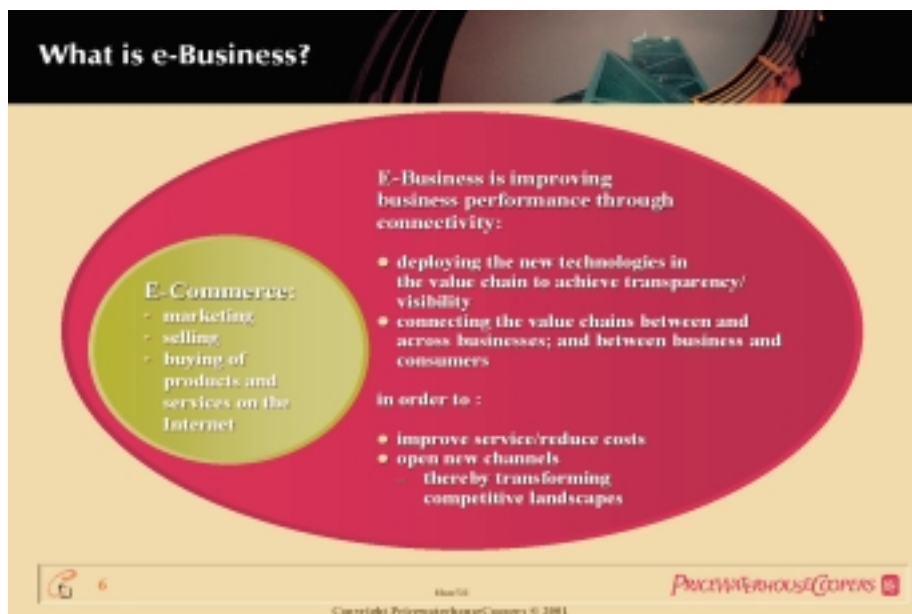
InterTradeIreland is well placed in facilitating these activities, but the governments and business development organisations will be responsible for implementation. The ultimate responsibility lies with the enterprises themselves to exploit eBusiness to improve competitiveness.

I Introduction

- 1.1 The economies of Northern Ireland and the Republic of Ireland share the challenge of maintaining and developing their competitive position in an increasingly global marketplace. Until recently, the two jurisdictions faced this challenge separately.
- 1.2 The new political framework established under the Belfast Agreement, including the NSMC and the six Implementation Bodies of which InterTradeIreland- the Trade and Business Development Body- is one, and the greater political and economic stability flowing from the Agreement, provides the opportunity to place economic co-operation on a new, more strategic and cohesive plane.
- 1.3 To this end, InterTradeIreland commissioned PricewaterhouseCoopers to carry out a research exercise on eCommerce under the following headings:
 - eBusiness Capability;
 - eBusiness Best Practice;
 - eBusiness Drivers;
 - The Impact of the 'Border Effect';
 - Co-operation;
 - Integration; and
 - The Way Forward.
- 1.4 A range of government initiatives were investigated, including:
 - New Targeted Social Need (TSN);
 - Citizens First;
 - Strategy 2010 and Leapfrog;
 - Electronic Service Delivery Targets;
 - UKOnline and Government Gateway;
 - OnlineNI;
 - Knowledge Network;
 - Programme for Government;
 - Northern Ireland Civil Service (NICS) Corporate Strategic Framework and IT Strategy;
 - Public Service Network;
 - REACH;
 - Public Service Broker;
 - OASIS; and
 - BASIS.

- 1.5 The on-going work of a range of organisations were investigated, including:
- IDA Ireland;
 - Enterprise Ireland;
 - Shannon Development;
 - Forfás;
 - Local Enterprise and Development Unit (LEDU);
 - Industrial Development Board (IDB); and
 - InterTradeIreland.
- 1.6 PwC have an extensive range of eBusiness knowledge repositories, populated by a global network of eBusiness consultants' and these repositories were trawled for relevant case studies and eBusiness survey data.
- 1.7 Relevant websites and on-line commercial databases such as Gartner Group and Forrester were trawled in order to further supplement the information gathered.
- 1.8 PwC, in partnership with the Carnegie Mellon University in Pittsburgh, have developed a method and software tool called EMM@ to facilitate the assessment of an organisation's current capability of successfully implementing and supporting its planned eBusiness projects. EMM@ was used to provide a range of illustrative eBusiness best practices applicable to the island of Ireland SME market place.
- 1.9 To ensure that the study is sufficiently comprehensive in identifying opportunities for the improvement of island of Ireland enterprise competitiveness, we have carried out the study based on the potential impact of the wider scope of eBusiness, as summarised below:

Figure 1.1 What is eBusiness?



1.10 The Department of Trade and Industry's (DTI) International Benchmarking Study 2000 elaborates further on the drivers of eBusiness and these are provided below for clarification:

Cost/Efficiency Drivers:

- Increasing the speed with which supplies can be obtained;
- Increasing the speed with which goods can be dispatched;
- Reduced sales and purchasing costs; and
- Reduced operating costs.

Competitiveness Drivers:

- Customer demand;
- Improving the range and quality of services offered; and
- Avoid losing market share to businesses already using eBusiness.

1.11 As the vast majority of island of Ireland enterprises are SMEs, i.e. they employ less than 250 people, this paper focuses on eBusiness from an SME perspective.

II eBusiness Capability

- 2.1 This section describes the eBusiness readiness of island of Ireland enterprise. In assessing a country's eBusiness capability, a number of criteria need to be considered, including:
- **Connectivity:** eBusiness cannot function without adequate telecommunications and Internet infrastructure. 'Connectivity' measures the access that individuals and businesses have to basic fixed and mobile telephony services, including voice and both narrowband and broadband data. Affordability and availability of service (both a function of the level of competition in the telecoms market) also figure as determinants of connectivity;
 - **Business Environment:** a country's eBusiness capability is dependent on the state of its general business environment and covers the strength of the economy, political stability, taxation and openness to trade and investment;
 - **eBusiness Consumer and Business Adoption:** including the level of Internet access, the number of eTransactions and the sophistication of eBusiness applications deployed;
 - **Legal and Regulatory Environment:** a vital factor that can enhance or inhibit the development of electronic trading. The extent of legal support for virtual transactions and digital signatures, ease of licensing and the ability of firms to operate with a minimal but effective degree of regulation are other criteria;
 - **Supporting Services:** no business or industry can function efficiently without intermediaries and ancillary services to support it. For eBusiness markets, these include portals and other on-line intermediaries, web-hosting firms, application service providers (ASPs), as well as website developers and eBusiness consultants; and
 - **Social and Cultural Infrastructure:** education and literacy are necessary preconditions to a population's ability to navigate the Web and drive future domestic Internet development.

2.2 The Economist Intelligence Unit (EIU) has produced the following table of eBusiness readiness rankings for 60 countries (published May 2001):

The Economist Intelligence Unit/Pyramid Research eReadiness rankings		
eReadiness ranking (of 60)	Country	eReadiness score (of 10)
	eBusiness leaders	
1	US	8.73
2	Australia	8.29
3	UK	8.10
4	Canada	8.09
5	Norway	8.07
6	Sweden	7.98
7	Singapore	7.87
8	Finland	7.83
9	Denmark	7.70
10	Netherlands	7.69
11	Switzerland	7.67
12	Germany	7.51
13	Hong Kong	7.45
	eBusiness contenders	
14	Republic of Ireland	7.28
15	France	7.26
16 (tie)	Austria	7.22
16 (tie)	Taiwan	7.22
18	Japan	7.18
19	Belgium	7.10
20	New Zealand	7.00
21	South Korea	6.97
22	Italy	6.74
23	Israel	6.71
24	Spain	6.43
25	Portugal	6.21
	eBusiness followers	
26	Greece	5.85
27	Czech Republic	5.71
28	Hungary	5.49
29	Chile	5.28
30	Poland	5.05
31	Argentina	5.01
32	Slovakia	4.88
33	Malaysia	4.83
34	Mexico	4.78
35	South Africa	4.74
36	Brazil	4.64
37	Turkey	4.51
38	Colombia	4.24
39	Philippines	3.98
40 (tie)	Egypt	3.88
40 (tie)	Peru	3.88
42	Russia	3.84
43	Sri Lanka	3.82
44	Saudi Arabia	3.80
45	India	3.79
46	Thailand	3.75
47	Venezuela	3.62
	eBusiness laggards	
48	Bulgaria	3.38
49	China	3.36
50 (tie)	Ecuador	3.30
50 (tie)	Iran	3.30
52 (tie)	Romania	3.20
52 (tie)	Ukraine	3.20
54 (tie)	Algeria	3.16
54 (tie)	Indonesia	3.16
56	Nigeria	2.91
57	Kazakhstan	2.76
58	Vietnam	2.76
59	Azerbaijan	2.72
60	Pakistan	2.66

eBusiness Readiness Categories

2.3 The 60 countries in the EIU table have been divided into the following four categories:

- **eBusiness leaders (includes UK)**

These countries (including the UK) already have most of the elements of 'eReadiness' in place, though there are still some concerns about regulatory safeguards.

- **eBusiness contenders (includes Ireland)**

These countries have both a satisfactory infrastructure and a good business environment, but parts of the eBusiness equation are still lacking.

- **eBusiness followers**

These countries have begun to create an environment conducive to eBusiness, but have a great deal of work still to do.

- **eBusiness laggards**

These countries risk being left behind, and face major obstacles to eBusiness growth, primarily in the area of connectivity.

2.4 In Northern Ireland, eBusiness adoption has increased significantly over the last 18 months, albeit from a small starter base. However, it should be noted that the DTI report, (*Business in the Information Age – International Benchmarking Study*) places Northern Ireland consistently below the UK average in the following categories:

- Use of PCs and e-mail in business;
- Connectivity;
- Marketing websites; and
- Customer-facing and supplier-facing eCommerce; which suggests that Northern Ireland may be more likely to be in the eBusiness contenders' category.

eBusiness Readiness Ranking Criteria

2.5 Each country's eBusiness readiness score has been determined through assessment of the following six criteria:

Criteria 1: Connectivity (30% weighting)

2.6 The area of island of Ireland telecommunications is covered in a separate report, All-Island Competitiveness: Information and Communication Technology.

Criteria 2: Business environment (20% weighting)

2.7 The following table provides UK and Republic of Ireland's business environment ranking for the period 2000–2004:

Country	Rank (60 countries assessed)	Business Environment Score (max = 10)
UK	6	8.8
Republic of Ireland	11	8.42

Criteria 3: eBusiness consumer and business adoption (20% weighting)

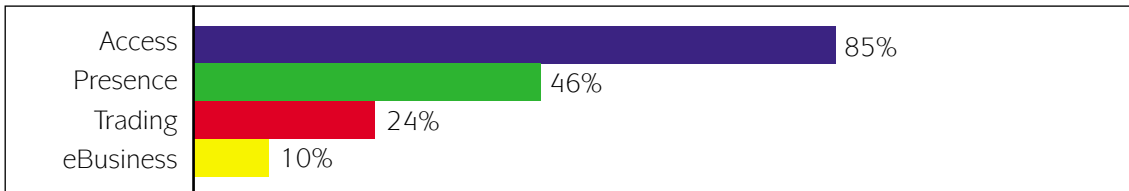
Republic of Ireland

- 2.8 Research by the Information Society Commission (ISC) indicates that 55% of Republic of Ireland businesses have now developed their own websites, although the majority still use them as brochureware to describe company products and services. Only 9% of companies with websites are trading on-line.
- 2.9 Of particular concern to business groups and agencies is that only 25% of very small businesses see eBusiness and IT as having any relevance for them.
- 2.10 However, according to research by Amárach, the Republic of Ireland is quickly becoming a B2C eCommerce market worth attention. Since 1998 ownership of PCs in the jurisdiction has risen by 13.8%, to around 417,000, or 32% of all households. Perhaps not surprisingly, the greatest penetration for home computers is in Dublin and the surrounding region. The number of households with Internet access multiplied by almost four, from 61,000 to 262,700; this translates into more than 20% of all households and 63% of those with a computer. The number of Irish adults shopping on-line has tripled over the past year, with 150,000 saying they have bought something via the internet in the past three months. For the first time, in a further sign of the continuing development of the market, Republic of Ireland web-sites account for the majority (51%) of purchases.
- 2.11 According to EIU, only 33% of Republic of Ireland Internet users have a credit card, limiting current potential for making on-line payments.

Northern Ireland

- 2.12 Leapfrog's Northern Ireland Business in the Information Age – *ICT Benchmarking Report* provides statistics on business adoption of eBusiness according to the following categories:
- Access – businesses with some employees using e-mail or the Internet;
 - Internet Presence – businesses with their own marketing website;
 - Trading on the Internet – businesses that allow their customers to order goods/services on-line, allow their customers to make electronic payments on-line and/or have an interactive/trading website; and
 - eBusiness – businesses that have reached the above trading stage and allow customers to check stock availability on-line and/or have a system in place for automatically reordering supplies.

Figure 2.1 Business Adoption of eBusiness by Category, Northern Ireland, 2000



Criteria 4: Legal and regulatory environment (15% weighting)

Republic of Ireland

- 2.13 Regulatory Environment – EIU describe the Republic of Ireland’s eCommerce Act as ‘one of the most far-reaching legislative frameworks for eCommerce created by a state.’ The Act states that law enforcement will not have the right to force individuals or businesses to surrender encryption keys. Suspects can be required to decrypt potentially incriminating material, but do not have to surrender the key.
- 2.14 Intellectual Property Law – Republic of Ireland is ranked as ‘very good’ on intellectual property protection.
- 2.15 eContract Readiness – the eCommerce Act formally recognises electronic documents as legally binding.
- 2.16 Censorship – the Internet Service Providers Association run the ‘Hotline’ service for reporting addresses of child pornography sites.

Northern Ireland

- 2.17 Regulatory Environment – the Electronic Commerce Act (Northern Ireland) 2001 received royal assent on 5 April 2001 and brings Northern Ireland into line with the rest of the UK with respect to the facilitation of the use of electronic communications and data storage.
- 2.18 The most significant element of this legislation is that it makes provision for the legal recognition of electronic signatures and the process under which they are generated, communicated or verified.
- 2.19 Intellectual Property Law – material distributed through the Internet or stored on Web Servers will generally be protected under UK copyright law in the same manner as that transmitted over traditional media.
- 2.20 eContract Readiness – the Northern Ireland eCommerce Act gives legal recognition to electronic signatures and includes an approvals scheme for businesses and other organisations providing cryptography support services such as electronic signature and confidentiality services.
- 2.21 Censorship – under UK law, ISPs are deemed not to be publishers of defamatory material provided that they can prove that they took reasonable care to ensure the material was not published, and provided they take action to resolve the problem once alerted to it.

Criteria 5: Supporting eServices (10% weighting)

- 2.22 ISP services are readily available to island of Ireland firms and the nature of these services means that ISPs located outside of the island of Ireland can also be utilised.
- 2.23 However, quality eBusiness support is already scarce. Analysis of skills is dealt with in a separate paper, All-Island Competitiveness: Skills.

Criteria 6: Social and cultural infrastructure (5% weighting)

- 2.24 The island of Ireland scores well here with higher education amongst the highest rate in OECD and an estimated literacy level of 98%.

Conclusions on Island of Ireland eBusiness Readiness

- 2.25 Both governments have made significant inroads into assisting enterprise move towards an eBusiness capability. On the subject of awareness, the Leapfrog (ICT Benchmarking Report 2000) states, 'Awareness of the benefits of ICT appears to be on the way to reaching saturation level.' However, awareness of the key business issues around implementing an eBusiness strategy may still need to be addressed in more detail. This area is explored further in the next section.

Competitiveness Inputs and Outputs

- 2.26 When measuring the input of eBusiness on the island of Ireland competitiveness, it is important to analyse both:
- eBusiness competitiveness inputs, including:
 - Consumer access to the Internet;
 - Number of websites etc.; and
 - eBusiness competitiveness outputs, including the contribution that an enterprise's eBusiness investments have made to:
 - Increasing the speed with which supplies can be obtained;
 - Increasing the speed with which goods can be dispatched;
 - Reducing sales and purchasing costs; and
 - Reducing operating costs;
 - Satisfying customer demand;
 - Improving the range and quality of services offered; and
 - Avoiding loss of market share to businesses already using eBusiness.
- 2.27 There is a risk that those SMEs which have been steered towards constructing a 'marketing website' may have experienced little or no business contribution from doing so and, as a result, may be reluctant to make further eBusiness investment. Recent eBusiness surveys have tended to concentrate on the competitiveness inputs of eBusiness (access to the Internet, number of websites, etc.) rather than the outputs (contribution of eBusiness to increased sales, cost reduction, etc.) so these ideas are currently untested.

2.28 The survey data-sets analysed showed significant variance in their figures. This may be due to a number of reasons' including:

- Differing sample profiles;
- Figures based on number of enterprises versus total number of employees in those enterprises; and
- Figures based on access to e-mail, Internet, etc. versus actual frequent use.

2.29 As a result, there is some confusion as to the true uptake of eBusiness on the island of Ireland.

Recommendation: As island of Ireland governments move forward with advancing the eBusiness capability of enterprise, an accurate and harmonised set of measures, covering both competitiveness inputs and outputs will be required to monitor and steer progress of initiatives through the island of Ireland.

2.30 On the subject of regulation, the processing of information is subject to the Data Protection Act.

Recommendation: It is possible that this Act, in its current form, could act as a barrier to the development of some legitimate and innovative eBusiness applications in both the public and private sectors. Consideration should be given to establishing a process for reviewing such cases with the potential of a resultant change to the Act.

III eBusiness Best Practice

eBusiness Best Practice Repositories for SMEs

3.1 There are numerous repositories of eBusiness 'best practice' on the Internet, specifically targeting the needs of SMEs. Such repositories are being maintained by both public sector agencies and private sector providers of small business portals. The key issues around these repositories include:

- What is the quality of the information and guidance offered?
- To what extent are SMEs aware of these sources of best practice?
- To what extent are SMEs accessing the information?
- To what extent are SMEs acting on the information?
- For public sector organisations on the island of Ireland, to what extent is effort in sourcing and maintaining this information being duplicated unnecessarily?

Recommendation: Investigate the feasibility of island of Ireland public sector organisations outsourcing their on-line eBusiness best practice provision to a single, well-maintained, promoted, and monitored repository.

eBusiness Strategy

3.2 Absence of an eBusiness strategy, linked to the overall business strategy, puts an SME at high risk of failure when it attempts to build an eBusiness capability. In addition, a well-crafted eBusiness strategy has a high risk of failure if an organisation has not identified the organisational infrastructure required to support its eBusiness applications. The following paragraphs provide the key areas of the organisation that an SME should investigate to facilitate success in eSpace. The list is not intended to be exhaustive and its purpose is to illustrate:

- The need to create an awareness among SMEs of the wide-ranging implications of eBusiness on their organisation; and
- That SMEs will require support in dealing with these implications.

Processes

3.3 Marketing – a website promoted only through on-line marketing runs the risk of remaining undetected by the target customer base. An off-line promotional campaign (using traditional media such as the press, radio, etc.) should also be considered. The costs associated with such a campaign tend to rise with the size of the target market. This is an important issue for SMEs when considering to what extent they can realistically 'go global' with their eBusiness.

3.4 Sales – the range of eSales issues that an SME should consider include:

- Can the website collect and analyse sales data and is this a cost-effective option?
- Have the costs/savings of eSales processing been estimated?
- Can integration of the web-site to the back-end sales processing system (should one exist) be justified?
- Are there processes to handle potential delays to fulfilment, partial deliveries and order cancellation?
- Should the eSales system provide the sales force with any benefits such as sales reporting, planning, communications and promotions?

- 3.5 Customer Service – The Internet is perceived as a 24/7 service delivery mechanism. Service Level Agreements (whether in-house or outsourced) for Network availability and support, web-server availability and support, helpdesk, etc., may require upgrade to reflect the new levels of continuous service required.
- 3.6 Supply Chain Management (SCM) – key issues include:
- Have potential reductions in transactional and overhead costs been estimated?
 - Are the SME's trading partners willing/capable of linking to its eSCM system?

Organisation and Capabilities

- 3.7 Top Management Support – a critical success factor for the delivery of an SME's eBusiness strategy will be the buy-in and ownership of the strategy by top management.
- 3.8 Roles and Responsibilities – the following roles may need to be allocated to existing employees, through new recruitment or through outsourcing:
- Content provider;
 - eBusiness security officer;
 - Technical webmaster;
 - Virtual community manager; and
 - Web consultant, etc.
- 3.9 eBusiness skills are not common and outsourcing may be the preferred option, providing there is a sufficient skills base on the island of Ireland to provide these services. The area of skills availability is explored in All-Island Competitiveness: Skills.
- 3.10 In particular, SMEs should give consideration to outsourcing their eBusiness security requirements. Gartner Group provide the following prediction:
- By 2003, 50% of SMEs that manage their own Internet security and use the Internet for purposes other than e-mail will have experienced a successful Internet-based attack, such as web-site hacking and the spreading of viruses. >60% of these enterprises will be unaware that they have been attacked.

Systems and Technology

- 3.11 Irrespective of whether the eBusiness system build and support is outsourced or performed in-house, SMEs should ensure that:
- Suitable IT technical resources are assigned to the application;
 - Open Internet standards are deployed, leading to platform independent applications;
 - Outsourcing of specific system functionality through Web links is considered (e.g. Taxware for tax calculation); and
 - Network requirements have been sized.

Delivery and Operations

- 3.12 Again, the following issues require addressing, irrespective of whether operational support of the eBusiness system is outsourced or performed in-house:
- Are there policies on user access to the Internet?
 - Are there procedures for content management covering version control, authorisation and content consistency?
 - Is the web-site designed to consistent standards and policies?
 - Is the SME at risk through unexpected levels of eBusiness success? (i.e. are there plans for managing an exceptionally high level of eOrders?); and
 - Can the site handle exceptionally high peaks in access?

Tax and Legal

- 3.13 Unlawful Content – web-sites should be regularly audited to ensure content is lawful and non-defamatory. SMEs should have strict employee policy for e-mail and Internet access.
- 3.14 Contracting with Trading Partners and Service Providers – contracts should address quality and performance, confidentiality and Intellectual Property Right (IPR) of web-content. Compliance with the Data Protection Act should be checked.
- 3.15 Tax – SMEs should ensure that they are compliant with the taxation rules covering:
- Deductions;
 - Liabilities;
 - Revenues; and
 - Taxable presence;

for both local and export trade.

Recommendation: Island of Ireland agencies should ensure that SMEs are aware of these broader eBusiness issues. Where SME support organisations have developed their own eBusiness programmes in isolation, there is a risk of duplication of effort, together with the possibility that those SMEs participating in more than one programme may receive conflicting messages.

Awareness materials and programmes would benefit from development at a single point in order to avoid this duplication of effort across the various agencies and to provide SMEs with a more effective awareness and education programme.

Recommendation: As the uptake of eBusiness amongst island of Ireland SMEs increases, there will be greater demands from these organisations for assistance with resolving the above broader potential eBusiness issues (providing that they are made aware of the issues in the first place) . A review of existing eBusiness services currently offered by island of Ireland agencies may identify service gaps that would require filling. In addition, different areas of expertise may be identified in different agencies, leading to the possibility of skills exchange and referral arrangements between agencies.

Dotcoms

3.16 What lessons have been learnt from the shake-out of dotcoms over the last 18 months? The dotcom marketplace is in flux. Its potential is undiminished, but the short-term prognosis points to a sustained period of correction, consolidation, reorientation and re-establishment of business fundamentals. In order to explore this area further, PwC commissioned an independent survey to establish the operational issues and challenges facing dotcom management in the current economic climate. Four hundred European Internet-based 'new economy' companies were interviewed between July and October 2000. The key findings follow.

Dotcom Management's Growth Predictions

3.17 Dotcom managers do not share the pessimism shown by capital markets in recent months:

- 69% of respondents expect their staffing levels to increase significantly in the next 12 months; and
- Average rate of turnover growth expected in the next year is 272%.

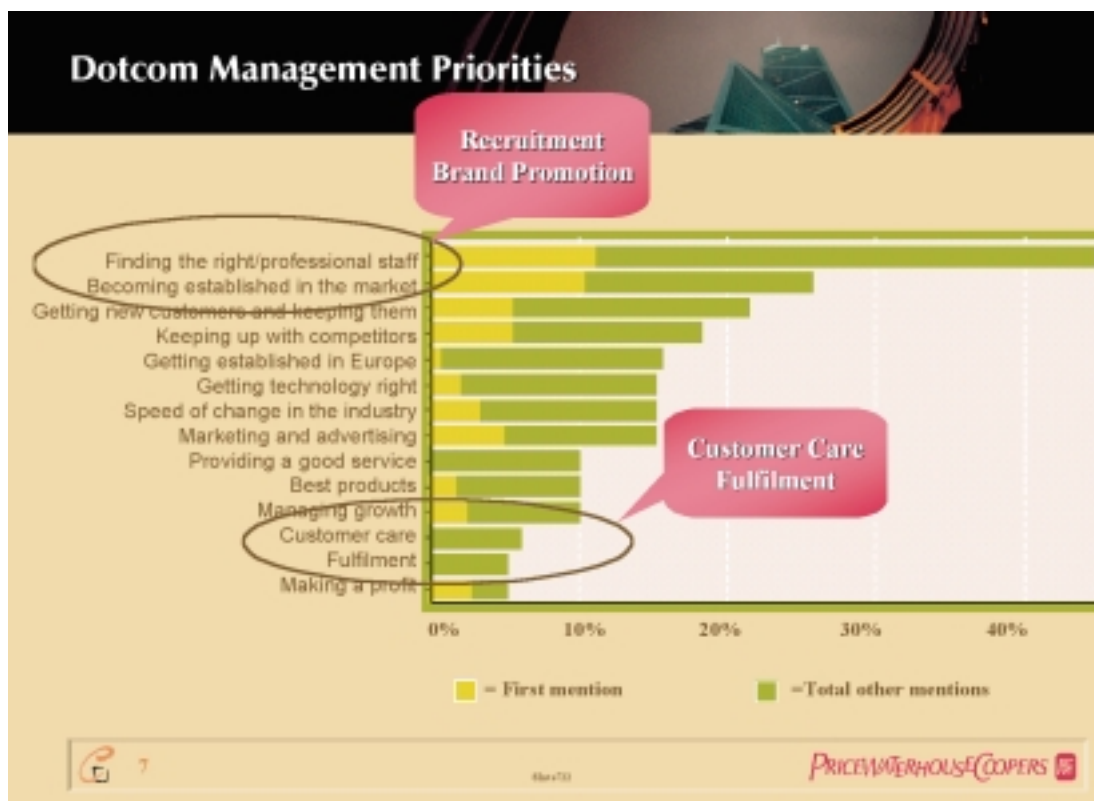
Dotcom Profitability

3.18 Of the companies interviewed 57% claim to be in profit with a further 15% breaking even. Companies which are profitable or breaking even overwhelmingly rely on direct sales of product. Companies reliant on advertising revenue or transaction commissions are much more likely to be loss-making.

Dotcom Management Priorities

3.19 The following figure highlights dotcom management priorities:

Figure 3.1 Dotcom Management Priorities



3.20 There is a sense here that 'new economy' businesses consider their business models to be exempt from some of the traditional business fundamentals such as customer care and effective fulfilment processes. In addition, 72% of dotcoms have taken no professional advice on the viability of their business models and 25% of dotcoms would fail basic financial hygiene tests through omissions such as:

- No monthly cashflow forecasts; and
- No monthly management accounts.

3.21 The key messages coming out of the survey include:

- 'New economy' companies do not exist in a vacuum and eBusiness relationships are founded on the same basic 'old economy' rules of commerce and trust; and
- Dotcoms have much to learn from established business realities and, if they are to survive and prosper, they need to learn these lessons fast.

The Canadian Government's eBusiness Acceleration Model

3.22 The Canadian government's model for moving eBusiness forward in enterprise is currently showing signs of success. The approach targets the following five goals:

- 3.23 Close the Venture Capital Gap - greater encouragement is being given to Canadian institutional investors and foreign investors to invest in Canadian eBusiness Projects. Market regulations are under review to make Canadian capital markets more attractive.
- 3.24 Build Canada's International eBusiness Brand – Canada is promoting its eBusinesses and pre-Initial Public Offering (IPO) companies to the US investment community. It is leveraging off its eBusiness strengths and success stories to build Canada's reputation as a global eBusiness leader.
- 3.25 Become a Magnet for eBusiness Talent – tax and immigration policies are under amendment in order to attract and retain eBusiness talent. University syllabuses are under review to ensure new graduates will have the required eBusiness skills.
- 3.26 Accelerate eBusiness Adoption in SMEs – Along with the normal 'how-to' campaigns to move SMEs from eBusiness awareness to implementation, Canada is also investigating how best to harness the 'pull' power of large organisations to draw SMEs on-line in a way that benefits both sides. Public sector eProcurement strategies are under review to enable Canadian government to lead by example in this area.

Recommendation: Whilst the vast majority of island of Ireland enterprises are SMEs, there are a number of large organisations with a significant indigenous supplier base. Island of Ireland governments should give consideration to encouraging these organisations to develop 'supplier-friendly' eSupply Chain Management (eSCM) systems in order to reduce the effort required by SMEs to connect to such systems. This would also give participating SMEs a legitimate business reason for developing an eSupplier capability.

3.27 Harness Government On-Line as an eBusiness Driver – implementation of eGovernment strategies are being accelerated and private sector involvement in Government On-Line is being encouraged through the establishment of public/private sector advisory panels and the publication of public/private success stories in eGovernment.

3.28 Opportunities for leveraging off eGovernment implementation to increase uptake of private sector eBusiness in island of Ireland is explored further in the following sections.

IV eBusiness Drivers

eBusiness Drivers for SMEs

4.1 The DTI's *International Benchmarking Study 2000* identifies the following range of drivers for the uptake of eBusiness:

Cost/Efficiency Drivers:

- Increasing the speed with which supplies can be obtained;
- Increasing the speed with which goods can be dispatched;
- Reduced sales and purchasing costs; and
- Reduced operating costs.

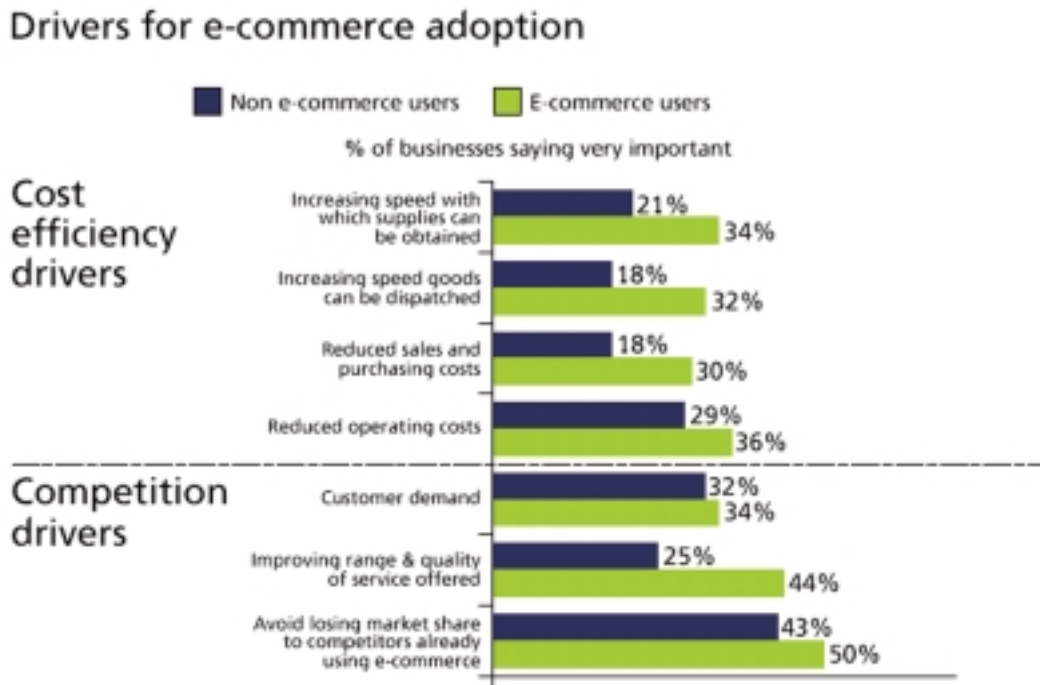
Competitiveness Drivers:

- Customer demand;
- Improving the range and quality of services offered; and
- Avoid losing market share to businesses already using eBusiness.

4.2 A recent study by the London School of Economics estimates that business-to-business eCommerce allows companies, including SMEs, to cut costs by up to 30%.

4.3 Leapfrog's *ICT Benchmarking Report – 2000* provides the following view of Northern Ireland companies:

Figure 4.1 Drivers for eCommerce Adoption, Northern Ireland, 2000



Note: E-commerce users were asked to rate how important each driver had been in encouraging them to use e-commerce, while non e-commerce users were asked to rate how important each driver would be in encouraging them to adopt e-commerce in the future.

Base: E-commerce users/non-e-commerce users

Ref: Q41/Q45

eBusiness Barriers for SMEs

- 4.4 According to Gartner Group, the majority of small businesses believe that their lack of resources inhibits their ability to advance their eBusiness agenda. Therefore, they hesitate to make new eBusiness investments.
- 4.5 A survey by the OECD identified the following barriers for the uptake of eCommerce by SMEs:

**Survey of business representatives:
principal impediments to the use of e-commerce by SMEs, and suggestions for policy action**

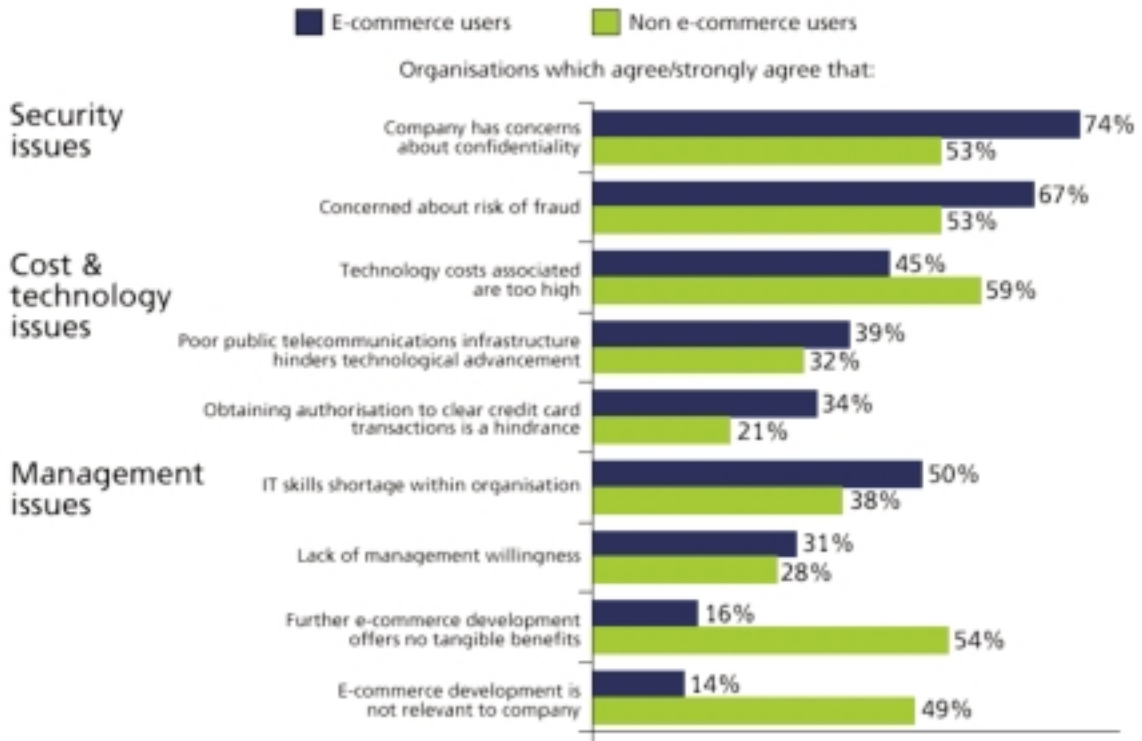
Impediments	Suggested policy actions
Low use of e-commerce by customers and suppliers	<ul style="list-style-type: none"> • Disseminating information on the advantages of e-commerce. • Creating conditions for its development: fiscal incentives, awareness programmes, technical assistance. • Introducing training and education programmes. • Developing legal frameworks conducive to the development of e-commerce.
Lack of knowledge and technical skills among SME personnel	<ul style="list-style-type: none"> • Promoting training and education (e.g. tax incentives for training).
Language problems	<ul style="list-style-type: none"> • Promoting language and qualification courses, developing skills for business contacts. • Promoting more international education programmes.
Limited awareness among entrepreneurs about the opportunities and risks of e-commerce	<ul style="list-style-type: none"> • Provision of more information by professional institutions about the opportunities and risks of e-commerce. • Financing or co-financing training of entrepreneurs. • Increased information dissemination.
Relatively high cost of access to the internet	<ul style="list-style-type: none"> • Cheap or free access to the internet for SMEs (e.g. through telecommunications liberalisation, tax incentives for investment).
Payments with credit cards are not secure	<ul style="list-style-type: none"> • Introducing legislation to regulate credit card payments. • Encouraging further improvement of the banking system. • Providing more information about the safety of credit card payments.

Note: In the order of the impediments most frequently rated by respondents.

- 4.6 The survey highlighted that many SMEs simply lack the basic knowledge and technical skills to implement eCommerce strategies. They are often too busy employing scarce human and financial resources to make their initial business plans succeed and are reluctant to allocate resources to implementing a new eCommerce strategy without a clearer understanding of the benefits and risks.
- 4.7 Even among those SMEs that recognise the potential offered by eCommerce, many are held back by uncertainty about the legal, regulatory and tax environment.
- 4.8 Leapfrog's *ICT Benchmarking Report – 2000* provides the following view of Northern Ireland companies:

Figure 4.2 Barriers to eCommerce Adoption, Northern Ireland, 2000

Barriers to eCommerce Adoption



Note: Sample for non-e-commerce users in NI is small (52 respondents)
 Base: E-commerce users/non-e-commerce users

Ref: Q42/Q46

4.9 A Chambers of Commerce of Ireland survey provides the following view of barriers to the take up of eBusiness by Republic of Ireland enterprises:

Obstacles to eBusiness Among Irish Enterprises 2000				
	Customers/Suppliers without eBusiness Capabilities	Lack of Technical Skills in company	Cost of Hardware/computer equipment	Lack of Security
Major Problem	26%	23%	17%	34%
Minor Problem	38%	44%	42%	34%
No Problem	36%	33%	41%	32%
Total	100%	100%	100%	100%

Drivers and Enablers of eGovernment

The OECD recommends that governments should 'lead from the front' when encouraging enterprise to develop eBusiness capability. Both Republic of Ireland and Northern Ireland are committed to developing eGovernment and electronic service delivery to citizens and businesses.

Republic of Ireland

- 4.10 The Irish government is committed to ensuring that the Republic of Ireland becomes both an early mover and a global player in the Information Society.
- 4.11 The Information Society Fund is a dedicated fund set up by the Department of Finance in order to develop the objectives of the government's Action Plan for the Information Society. During 2000, €38 million was made available for electronic government and services. Additional staffing resources are also being made available for Information Society projects. Funding of €102.8 million is being provided over the period 2000-02 for ICT in education, with the aim of providing high speed access to the Internet from every classroom and encouraging the greater use of technology in the curriculum.
- 4.12 The Information Society Commission was established for a three-year period by the government in May 1997 as a response to the report, *Information Society Ireland Strategy for Action*. The Commission is an advisory body whose main function is to monitor and advise on the development of the Information Society in the Republic of Ireland. A number of advisory groups report to the Commission, including the Awareness Advisory Group, Benchmarking and Research Advisory Group and Infrastructure Advisory Group. An inter-departmental group on eProcurement has been established.
- 4.13 The REACH organisation was established in July 1999. Its key responsibility is the development of a national framework for the integration of public services. The REACH initiative will impact on all public service agencies that deal directly with the citizen. An equivalent Business REACH will use business numbers in order to deliver integrated services to firms.
- 4.14 REACH will develop an approach for the delivery of public services on the basis of the eBroker (or Public Service Broker) model. This will provide integrated services based on the Personal Public Service Number (PPSN) and the Public Services Card, (PSC) together with provision for the necessary certification and verification services. The Public Service Broker will provide a single accessible, user friendly access point for users of government services, for 'life events' such as registering a birth, getting a job, buying a house, etc., and for 'business episodes', such as starting a business, registering a company, filing returns. The Public Service Broker should also facilitate direct ePayments to and from government.
- 4.15 The OASIS portal caters for citizen life-events, while the BASIS portal caters for Business life-events.

Northern Ireland

- 4.16 eGovernment services in Northern Ireland are being worked up along the similar lines of a single registration and authentication point and a life-event based portal.
- 4.17 UKOnline is an ongoing campaign to provide citizens and businesses with a portal to all electronically delivered government services. The two key initiatives are Government Gateway and www.UKOnline.gov.uk.
- 4.18 UKOnline is an Internet-based website with the goal of aggregating all government information and services in one place. It is intended to be the primary place where citizens go to get information about government services and to transact with government on-line. www.UKOnline.gov.uk currently provides general information about the UKonline programme and brings together information and advisory services from a variety of sources to help citizens through important experiences, called 'life episodes'.

- 4.19 The Government Gateway ensures that the respective roles of government departments, in providing joined-up services, are transparent to the end user. The Gateway provides the appropriate routing and connection services to departments and also the necessary security and authentication to enable different parts of government to conduct electronic transactions with citizens. The Gateway will also be instrumental in opening up government departments and their information assets and services to the public, private and voluntary sectors.
- 4.20 Whilst UKOnline is intended to be the principal entry point to UK government electronic services, it is not intended that it will be the only entry point.
- 4.21 A 'Portal to Government Services' project has received funding of £1.2 million from the Executive Programme Fund – Service Modernisation to develop a portal into Northern Ireland government electronic services over the next three years.
- 4.22 An "OnlineNI" site will be developed which may be the Northern Ireland equivalent of www.UKOnline.gov.uk
- 4.23 The Central Information Technology Unit (CITU NI) have mandated the use of Government Gateway for all registration and authentication services required for Northern Ireland government electronic service delivery to citizens and businesses. The portal project will look to the provision of a Departmental Information Server (DIS) which is required to interface Northern Ireland Departments with the Government Gateway.
- 4.24 The Northern Ireland Civil Service (NICS) Corporate Strategic Framework has recently been released and provides the basis for building electronic government services within Northern Ireland while ensuring consistency and appropriate integration with current initiatives within the Cabinet Office, the Scottish and Welsh devolved administrations and certain programmes in the Republic of Ireland.
- 4.25 Public Service Network (PSN) currently provides a network between all department headquarters. It has received Government Secure Intranet (GSI) accreditation.
- 4.26 A Knowledge Network has been implemented in Northern Ireland to initially provide shared services across departmental private offices. These services are:
- Correspondence registers – to track advice general responses made to various types of correspondence;
 - Minister's Diary – to enable the activity of a Minister to be planned and scheduled; and
 - Media Activity Planner – to aid the co-ordination of press activity across government.
- 4.27 Knowledge Network phase 2 will deliver a further 6 applications for use in all NICS departments:
- Key policy briefing and planning, facts and figures;
 - Ministerial briefing - lines to take;
 - Key speeches;
 - Key themes;
 - Press releases, press cuttings; and
 - Hansard.

Public Sector Procurement

4.28 Both governments are currently moving forward with their public sector eProcurement strategies.

Recommendation: Consideration should be given to harmonising island of Ireland public sector eProcurement strategies to minimise the effort and maximise the benefit for SMEs connecting to public sector eProcurement systems. A key goal of public sector eProcurement strategies should be to maximise SME eBusiness trading capabilities. In other words, there is an opportunity to lever off public sector eProcurement to provide SMEs with a legitimate business reason for developing an eSupplier capability.

4.29 Opportunities for enhanced co-operation between the two governments is explored further in Section VI – ‘Co-operation’.

V The Impact of the ‘border effect’

- 5.1 This section assesses to what extent cross-border trade issues would act as a barrier to the implementation of cross-border eBusiness opportunities.
- 5.2 In short, eBusiness is an enabler to cross-border trade. Geography becomes less important due to potential for vast improvements in the quality of information flows between an organisation and its business community. Effective deployment of eBusiness technologies is a key factor in the shift to a knowledge-driven economy. Production can be shifted to countries with lower labour costs, enabling, and sometimes forcing organisations to focus on the higher value services such as innovation and design.
- 5.3 In InterTradeIreland’s document, *Cross Border Trade—A Discussion paper on North-South Trade Issues*, a number of potential barriers to cross-border trade is identified. These barriers are summarised in the following table, together with their impact on the uptake of eBusiness:

Potential Cross-Border Trade Barriers:	Impact on Uptake of eBusiness:
<p>Currency is cited by Northern Ireland-based traders as the most significant impediment to trade in terms of ongoing fluctuations or sterling’s current strength. However, while fluctuations make planning difficult, currency is still not seen as a serious hindrance by those already involved in North–South trade, although it may be a deterrent to new entrants.</p>	<p>eBusiness facilitates globalisation, increasing the need for those organisations wishing to go down this route to have back-end systems capable of handling multi-currency transactions.</p> <p>North-South currency differences do not impact on the uptake of eBusiness.</p>
<p>In terms of scale, the Republic of Ireland, with a population of 3.7m people, is an attractive market for Northern Ireland suppliers; the Northern Ireland market, being 2.5 times smaller, is less of a focus for the Republic of Ireland.</p>	<p>The eBusiness systems used by Republic of Ireland firms to link with Northern Ireland firms could potentially be used to extend linkage to GB firms and beyond.</p> <p>However, it is important to stress that it is not the intention of these systems to replace the need for face-to-face relationship-building between businesses.</p>
<p>There is little difficulty with distribution, although the Republic of Ireland is less centralised and has higher distribution/merchandising costs.</p>	<p>For digitisable goods, such as software, eBusiness systems can remove the need for physical distribution.</p> <p>Where an SME has outsourced its distribution function, an eBusiness link between the SME and the distributor can improve the information flows between the two organisations and facilitate additional services, such as on-line order tracking which can be made available to the purchaser.</p>

<p>Potential Cross-Border Trade Barriers:</p> <p>SMEs lack sufficient information about the Northern Ireland market to open up business there or may not be aware of the support network available from agencies and trade associations.</p>	<p>Impact on Uptake of eBusiness:</p> <p>eBusiness technologies can be deployed to provide a 'brokerage' site, linking potential purchasers and suppliers. Links to support services can also be provided. Some 'brokerage' sites exist already. This topic is explored further in the following section.</p>
<p>There is insufficient product innovation, particularly in the food and drink sector, to provide a significant stimulus to cross-border trade.</p>	<p>cCommerce (collaborate commerce) applications can be deployed to increase the effectiveness of existing SME clusters, and to provide links between entrepreneurs and university R&D. This topic is explored further in the following section.</p>
<p>Cultural differences, i.e. consumer taste preferences or trading customs, tend to be perceived rather than actual; examples were quoted, e.g. product origin on packaging.</p>	<p>No impact.</p>
<p>Labour availability is an issue both sides of the border, as both markets are experiencing a shortage of suitably trained labour, putting pressure on output, product quality, delivery, etc.</p>	<p>Skills availability is dealt with in a separate paper, <i>All-Island Competitiveness: Skills</i>.</p>
<p>EU reclassification, withdrawal of Objective One status, an EU classification that draws preferential funding to a country/region, may impact in the longer term, particularly in Northern Ireland, currently classed as 'Objective One in Transition'.</p>	<p>With less funding available for eBusiness uptake initiatives, there is more reason for more collaborative North-South initiatives in order to avoid duplication of effort and make best use of funds.</p>

VI Co-operation

eGovernment

6.1 As stated earlier in this paper, there is an opportunity to lever off public sector eProcurement to provide SMEs with a legitimate business reason for developing an eSupplier capability. In doing so, governments should make it as easy as possible for SMEs to connect to their eProcurement systems.

Recommendation: Northern Ireland and Republic of Ireland public sector eProcurement project teams should liaise with each other to explore the possibilities of developing a common supplier interface to reduce the cost and effort required from SMEs to connect to these systems.

6.2 In Northern Ireland, the 'OnlineNI' life-event portal project is still to mobilise.

Recommendation: The 'OnlineNI' project team should liaise with the REACH organisation in order to become aware of lessons learnt to date in the implementation of the OASIS and BASIS portals in the Republic of Ireland, together with the establishment of eGovernment registration and authorisation processes.

6.3 The Freedom of Information Act, which became law in Republic of Ireland in 1998, will be a major driver for the deployment of eBusiness technologies to improve records management within government departments.

Recommendation: Northern Ireland government departments may benefit from liaising with their Republic of Ireland counterparts in order to become aware of the impact of the Freedom of Information Act on those departments and how potential increased demand for information is being managed.

Helping SMEs Manage Collaborative Opportunities

As we move closer towards a knowledge-driven economy, the importance of effective knowledge management in enterprises will increase. A PwC survey for the DTI into knowledge management awareness among SMEs indicated that the majority of SMEs are currently placing emphasis on the management of knowledge internal to the SME, with little recognition in any strategy of the opportunities of knowledge-sharing with external bodies.

On the subject of collaborative activities with other firms, the Analysis Report accompanying the UK government's *White Paper, Our Competitive Future*, identifies the importance of collaborative activities among SMEs but also states the following:

there is also reason to believe that firms may find it difficult to come to these arrangements of their own accord, suggesting that there may be a role for government in brokering greater collaboration between firms or between firms and universities. By its nature, much of this will need to be done at the regional or local level.

The PwC study recommended that consideration be given to the exploitation of current cCommerce technologies to construct an Intelligent Collaborative website for SMEs in order to provide SMEs with access to information about their trading partners and service providers, including:

- Potential suppliers;
- Potential customers;
- Invitations To Tender (ITT) in the field of their delivery capability;
- Joint venture opportunities, automatically driven by ITTs that SMEs were only partly capable of delivering;

- Potential communities of interest, automatically driven by a common need among groups of SMEs for similar market research;
 - Potential communities of interest, automatically driven by common purchasing requirements; and
 - Links to sources of scientific and technical expertise, automatically driven by an SME's requirements as recorded in their personal business profile.
- 6.4 This recommendation is equally applicable to the island of Ireland. However, it should be noted that the construction of a collaborative website is a small proportion of the work involved in making such an application a success.
- 6.5 Applications of this type rely heavily on the establishing of relationships between the various trading partners, SMEs, large suppliers, research establishments and procurement bodies in both the public and private sectors.
- 6.6 Significant relationship networks already exist across the various agencies and a number of such sites exist already. There is a risk that as the number of such sites increases, each underlying SME database will be maintained in isolation of the others. This can cause fragmentation of the SME user community, with a resultant reduction in the number of collaborative opportunities.

Recommendation: Liaise with Republic of Ireland and Northern Ireland agencies currently running collaborative web-sites to explore the possibility of linking the underlying SME/research source/trading partner databases to increase the possibility of identifying North-South collaborative opportunities.

VII Integration – eBusiness and the wider Competitiveness Agenda

7.1 The successful uptake of eBusiness by SMEs in the island of Ireland is dependent on other strands of the competitiveness agenda.

People

7.2 In spite of the currently low uptake of eBusiness on the island of Ireland eBusiness skills are already scarce. Schools and universities will need to ensure that curriculums and syllabuses will provide Ireland with an indigenous source of suitably educated people to fill the eBusiness posts.

Costs

7.3 The following eBusiness cost/efficiency drivers have been identified:

- Increasing the speed with which supplies can be obtained;
- Increasing the speed with which goods can be dispatched;
- Reduced sales and purchasing costs; and
- Reduced operating costs.

7.4 There is anecdotal evidence to suggest that there has been some over-hyping of the benefits of eBusiness to SMEs, suggesting that these benefits are a 'given'. Future eBusiness uptake initiatives need to set these drivers as criteria against which SMEs can validate potential eBusiness opportunities. The option that eBusiness may not always provide a positive net contribution to an SME is a reality.

Infrastructure

7.5 Fulfilment remains a key element of eBusiness. For non-digitisable products' the island of Ireland will require a sound transportation infrastructure to fulfil electronic orders.

Telecommunications

7.6 eBusiness uptake on the island of Ireland will be dependent on a sound telecommunications infrastructure, combined with internationally competitive tariffs. This area is dealt with in more detail in a separate paper, All-Island Competitiveness: Information and Communication Technology.

Science and Technology

7.7 cCommerce technologies can be deployed to forge better links between the island of Ireland R&D sources and island of Ireland growth potential businesses in order to effectively combine innovation with commercial delivery.

Regulation

7.8 As discussed in Section II, a country's regulatory environment is a key element of its eBusiness readiness rating. The EIU rate Ireland and the UK highly in this area.

VIII The way forward

- 8.1 This paper recognises the significant effort that governments and business development organisations have made in promoting the uptake of eBusiness by island of Ireland enterprise.
- 8.2 The focus of the paper has been to examine the potential for additional co-operation between the various players both North and South of the border and, to this end, has set out a number recommendations.

Making it Happen

- 8.3 In the short term, there are a number of enabling actions that can be taken in order to mobilise/further progress the recommendations:
- Agree with the Department of Enterprise, Trade and Employment (DETE) in the Republic of Ireland and the Department of Enterprise, Trade and Investment (DETI) in Northern Ireland the need for an accurate harmonised set of measures for monitoring the impact of eBusiness on island of Ireland competition;
 - Draft initial set of measures for consultation with the departments and various organisations involved in eBusiness promotion;
 - Assess the willingness of agencies, Chambers of Trade, etc., to collaborate in the areas of:
 - Single eBusiness best practice repository;
 - Single production point for production of eBusiness awareness/education materials for SMEs; and
 - Shared SME/research source/trading partner databases;
 - Carry out an eBusiness service provision audit among the various agencies, Chambers of Trade, etc., in order to identify:
 - Sources of service provision;
 - Service gaps; and
 - Opportunities for referral arrangements between these organisations;
 - Liaise with both governments to assess willingness for collaboration in the areas of:
 - Data Protection Act issues;
 - Freedom of Information Act issues;
 - eProcurement; and
 - Electronic Service Delivery interfaces with the citizen and businesses.
- 8.4 InterTradeIreland is well placed in facilitating these activities, but the governments and business development organisations will be responsible for implementation. The ultimate responsibility lies with the enterprises themselves to exploit eBusiness to improve competitiveness.

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