

The 2002 e-readiness rankings

A white paper from the Economist Intelligence Unit



Written in co-operation with
IBM

The Economist Intelligence Unit

The Economist Intelligence Unit is a specialist publisher serving companies establishing and managing operations across national borders. For over 50 years it has been a source of information on business developments, economic and political trends, government regulations and corporate practice worldwide.

The EIU delivers its information in three ways: through subscription products ranging from newsletters to annual reference works; through specific research reports, whether for general release or for particular clients; and through electronic publishing. The firm is a member of The Economist Group.

London

The Economist Intelligence Unit
15 Regent Street
London
SW1Y 4LR
United Kingdom
Tel: (44.20) 7830 1000
Fax: (44.20) 7499 9767
e-mail: london@eiu.com

New York

The Economist Intelligence Unit
The Economist Building
111 West 57th Street
New York, NY 10019
USA
Tel: (1.212) 554-0600
Fax: (1.212) 586-0248
e-mail: newyork@eiu.com

Hong Kong

The Economist Intelligence Unit
60/F Central Plaza
18 Harbour Road
Wanchai
Hong Kong
Tel: (852) 2802 7288
Fax: (852) 2802 7638
e-mail: hongkong@eiu.com

Website: <http://www.eiu.com>

Electronic delivery

EIU Electronic

New York: Lou Celi or Lisa Hennessey Tel: (1.212) 554 0600 Fax: (1.212) 586 0248

London: Moya Veitch Tel: (44.171) 830 1007 Fax: (44.171) 830 1023

Copyright

© 2002 The Economist Intelligence Unit Limited and IBM Corporation. All rights reserved. Neither this publication nor any part of it may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of The Economist Intelligence Unit Limited.

The authors of EIU Research Reports are drawn from a wide range of professional and academic disciplines. All the information in the reports is verified to the best of the authors' and the publisher's ability, but neither can accept responsibility for loss arising from decisions based on these reports. Where opinion is expressed, it is that of the authors, which does not necessarily coincide with the editorial views of The Economist Intelligence Unit Limited or of The Economist Newspaper Limited.

The 2002 e-readiness rankings

The Economist Intelligence Unit is pleased to present the 2002 edition of its e-readiness rankings, organised in co-operation with IBM. Now in their third year, the rankings have become an established benchmark for countries seeking to harness the Internet's potential to spur business efficiency, improve the provision of public services and encourage integration with the global economy.

"E-readiness" is shorthand for the extent to which a country's business environment is conducive to Internet-based opportunities. It is a concept that spans a wide range of factors, from telephone penetration to online security to intellectual property protection. It is an idea that has outlasted the Internet "bubble" that sparked such exuberance—and delivered such disappointment—in the late 1990s.

"Despite the dotcom bust, the Internet is still reshaping the way companies do business, and countries' e-readiness will be a vital feature of the global competitive landscape," notes Daniel Franklin, Editorial Director of the Economist Intelligence Unit.

Covering the world's 60 largest markets, the rankings provide a useful guide for companies seeking to invest in technology-savvy countries, as well as governments looking to reap the benefits of the digital age.

"Governments want to know how to attract businesses and enable citizen development, and business leaders want to know where to invest to grow their companies," explains Jeremy Andrusis, Public Sector Lead at IBM's Institute for Business Value, which helps business leaders use technology to create value. "The e-readiness rankings provide a valuable framework to address those challenges."

Both the Economist Intelligence Unit and IBM have engaged in e-business research for many years, so collaborative work on the rankings was a natural fit. The rankings model is a joint undertaking. The Economist Intelligence Unit, however, has sole responsibility for scoring and ranking the 60 countries covered by the e-readiness rankings.



The 2002 e-readiness rankings

Executive summary

E-business is taking root just about everywhere—but some countries are pioneers, others laggards. In the latest edition of the Economist Intelligence Unit e-readiness rankings, which cover the world's 60 largest markets, North America, northern Europe and Australia take the top ten spots (see tables on pages 4-7).

The new edition of the rankings—the third since their launch in 2000—shows steady improvement and increasing convergence among the top-tier countries, where heavy investment in Internet technologies is bearing fruit. Many less-developed countries lag behind, however, their e-readiness hindered by a range of factors, including poor infrastructure, inadequate protection for intellectual property, lack of finance and unfavourable business environments.

The new round of rankings affirms two conclusions suggested by previous

editions. First, neither size nor location is destiny. Although the US comes first in the rankings, the rankings place a premium on agility rather than sheer economic might. Many nimble smaller economies in Scandinavia and Europe thus score highly, whereas less innovative giants like Japan rank relatively low. And although geographic regions tend to fall into one category or another, there are always exceptions: standout countries such as Singapore or Chile, which outshine their neighbours in e-readiness.

Second, government policy makes a difference. Many less-developed countries, such as the Czech Republic and Mexico, are making good progress in e-business thanks in large part to proactive government policies. Indeed, for countries near the bottom of our rankings, improvement in the e-business environment owes much to public policy. Where governments have drawn up clear plans for IT investment and computer literacy, enhanced



competition among infrastructure providers and enacted laws to deal with the grey areas created by the Internet, e-business fares better.

This white paper, published by the Economist Intelligence Unit in co-operation with IBM, presents the rankings of the world's largest 60 economies (which account for 95% of global GDP), explains the methodology used and provides detailed findings for the top ten countries in each ranking category. The next edition of the Economist Intelligence Unit e-readiness rankings is scheduled to appear in January 2003.

2002 e-readiness scores

How do the world's 60 largest economies stack up? The US leads the pack, as it did in the 2000 and 2001 Economist Intelligence Unit e-readiness rankings. However, due partially to changes in our methodology, and mostly to developments in countries' infrastructure, regulatory environment and economy, there have been significant shifts further down in the rankings.

The Netherlands has moved into second place from tenth in 2001, for example, and northern Europe now claims most of the other top spots, thanks not only to sophisticated IT infrastructure and high mobile-phone penetration, but also to smart

government policy and a good overall business environment. Asia, Latin America and Africa trail further behind, but a few standouts in each region have made significant gains.

The following are among the main conclusions suggested by the new rankings:

Western economies take the lead.

North America and Western Europe dominate the top ten places in our rankings, with Australia the lonely outsider. These countries score highest both because consumers and businesses have embraced the Internet, and because their economic and political stability and openness to foreign investment make them good bets for all kinds of business, particularly e-business.

Uniformity is growing at the top.

The top countries show steady improvement over the 2001 scores, and there has been convergence among the highest-ranked countries. This reflects the increasing standardisation of Internet-era legislation and heightened technological uniformity. There is only a tiny .31 difference in score, for instance, between the US, ranked first with 8.41, and Austria, ranked 14th with 8.10.

Other regions have pockets of promise. Outside of Western Europe

and North America, e-business is less uniformly developed. Singapore and Hong Kong lead the pack in Asia, taking 11th and 13th place, respectively, while Vietnam and Pakistan languish at the bottom of the heap, in 56th and 57th place. The same is true of Latin America, where advanced Chile ranks 28th, while Ecuador stumbles into 50th place. In the Middle East and Africa, Israel alone ranks among the top 30 countries.

Bigger is not always better.

The US may rule the roost, but many of the world's largest economies, including Japan, Germany and France, are outpaced by smaller, more agile, competitors, such as the Netherlands, Switzerland and Sweden. What sets these countries apart is the broad accessibility and affordability of the Internet, thanks to state-of-the-art IT infrastructure and high per capita income.

Business culture is decisive.

The US tops the rankings because of the degree to which the Internet has become embedded in commercial culture. Nowhere is so much business conducted over the Internet so routinely. This explains why the US scored highest in the category for e-business supporting services (the consulting and IT services and back-

office solutions used to facilitate online business) as well as in the social and cultural category (which considers, among other things, the degree of innovation and entrepreneurship in business). It also explains why Singapore and Hong Kong rank as the most competitive telecom markets in the world, and among the best equipped, yet don't figure among the top ten countries. While high-grade infrastructure is important, more important is how people use it.

Infrastructure is still evolving.

Even top-ranked countries have not yet satisfied consumer demand for fast, cheap, secure and reliable Internet connectivity. High-speed broadband services are not universally available and Internet-ready mobile phones are still in their infancy—even in mobile-crazed Scandinavia. In emerging markets, meanwhile, monopolistic telecom providers still inhibit the competition that can speed innovation and drive down prices, and tight budgets thwart ambitious development plans.

Governments have wide influence.

Internet business thrives when governments are committed to a clear, consistent strategy to develop IT infrastructure. Adequate funding is crucial, but so too is firm political leadership that builds public support



Economist Intelligence Unit e-readiness rankings, 2002

E-readiness ranking (of 60)	2001 ranking	Country	E-readiness score (of 10)
1	1	US	8.41
2	10	Netherlands	8.40
3	3	UK	8.38
4 (tie)	11	Switzerland	8.32
4 (tie)	6	Sweden	8.32
6	2	Australia	8.30
7	9	Denmark	8.29
8	12	Germany	8.25
9	4	Canada	8.23
10	8	Finland	8.18
11 (tie)	7	Singapore	8.17
11 (tie)	5	Norway	8.17
13	13	Hong Kong	8.13
14	16	Austria	8.10
15	14	Ireland	8.02
16	19	Belgium	7.77
17	15	France	7.70
18	20	New Zealand	7.67
19	22	Italy	7.32
20	16	Taiwan	7.26
21	21	Korea	7.11
22	24	Spain	7.07
23	26	Greece	7.03
24	25	Portugal	7.02
25	18	Japan	6.86
26	23	Israel	6.79
27	27	Czech Republic	6.45
28	29	Chile	6.36
29	28	Hungary	6.05
30	34	Mexico	5.67





Economist Intelligence Unit e-readiness rankings, 2002

E-readiness ranking (of 60)	2001 ranking	Country	E-readiness score (of 10)
31	30	Poland	5.52
32	33	Malaysia	5.50
33	35	South Africa	5.45
34	36	Brazil	5.31
35	31	Argentina	5.14
36	32	Slovakia	5.00
37	47	Venezuela	4.91
38	38	Colombia	4.77
39	40	Peru	4.43
40	37	Turkey	4.37
41	48	Bulgaria	4.25
42	43	Sri Lanka	4.05
43	45	India	4.02
44	52	Romania	4.00
45	42	Russia	3.93
46	46	Thailand	3.86
47	44	Saudi Arabia	3.77
48	40	Egypt	3.76
49	39	Philippines	3.72
50	50	Ecuador	3.68
51	49	China	3.64
52	54	Indonesia	3.29
53	50	Iran	3.20
54	52	Ukraine	3.05
55	56	Nigeria	2.97
56	58	Vietnam	2.96
57	60	Pakistan	2.78
58	54	Algeria	2.70
59	57	Kazakhstan	2.55
60	59	Azerbaijan	2.38



Economist Intelligence Unit e-readiness rankings, 2002 by region

Rank in region	Overall ranking (of 60)	Country	E-readiness score (of 10)
The Americas			
1	1	US	8.41
2	9	Canada	8.23
3	28	Chile	6.36
4	30	Mexico	5.67
5	34	Brazil	5.31
6	35	Argentina	5.14
7	37	Venezuela	4.91
8	38	Colombia	4.77
9	39	Peru	4.43
10	50	Ecuador	3.68
Western Europe			
1	2	Netherlands	8.40
2	3	UK	8.38
3	4 (tie)	Switzerland	8.32
3	4 (tie)	Sweden	8.32
5	7	Denmark	8.29
6	8	Germany	8.25
7	10	Finland	8.18
8	11 (tie)	Norway	8.17
9	14	Austria	8.10
10	15	Ireland	8.02
11	16	Belgium	7.77
12	17	France	7.70
13	19	Italy	7.32
14	22	Spain	7.07
15	23	Greece	7.03
16	24	Portugal	7.02
Asia/Pacific			
1	6	Australia	8.30
2	11 (tie)	Singapore	8.17
3	13	Hong Kong	8.13
4	18	New Zealand	7.67

**Economist Intelligence Unit e-readiness rankings, 2002
by region**

Rank in region	Overall ranking (of 60)	Country	E-readiness score (of 10)
----------------	----------------------------	---------	------------------------------

Asia/Pacific

5	20	Taiwan	7.26
6	21	Korea	7.11
7	25	Japan	6.86
8	32	Malaysia	5.50
9	42	Sri Lanka	4.05
10	43	India	4.02
11	46	Thailand	3.86
12	49	Philippines	3.72
13	51	China	3.64
14	52	Indonesia	3.29
15	56	Vietnam	2.96
16	57	Pakistan	2.78

Middle East and Africa

1	26	Israel	6.79
2	33	South Africa	5.45
3	40	Turkey	4.37
4	47	Saudi Arabia	3.77
5	48	Egypt	3.76
6	53	Iran	3.20
7	55	Nigeria	2.97
8	58	Algeria	2.70

Eastern Europe

1	27	Czech Republic	6.45
2	29	Hungary	6.05
3	31	Poland	5.52
4	36	Slovakia	5.00
5	41	Bulgaria	4.25
6	44	Romania	4.00
7	45	Russia	3.93
8	54	Ukraine	3.05
9	59	Kazakhstan	2.55
10	60	Azerbaijan	2.38





behind a digital-age vision of development. Money isn't everything here: successful e-business depends on a strong legal framework that protects private property and encourages entrepreneurship. Increasingly, it also requires Internet-specific legislation. In the crucial category of legal and policy environment, Australia comes first, followed by Sweden, Switzerland, Finland and the UK. Other countries—even those without a strong e-business culture, such as Mexico and Chile—are enacting smart Internet legislation, recognising that good laws promote industry growth.

Methodology

With every year the model for the Economist Intelligence Unit's e-readiness rankings has grown in sophistication. This year, working in association with IBM's Institute for Business Value, the Economist Intelligence Unit adjusted the rankings framework to shift away from the

dotcom era's emphasis on websites and e-commerce to the new imperatives of corporate efficiency, security and global connectivity.

The six categories that feed into the rankings (and their weight in the model) are connectivity and technology infrastructure (25%); business environment, using the 70 indicators covered by the Economist Intelligence Unit's business environment rankings for 60 countries (20%); consumer and business adoption (20%); legal and policy environment (15%); social and cultural infrastructure (15%); and supporting e-services (5%).

Some countries demonstrate strength in all categories, while others stand out in a few categories but lag behind in others. What follows is a category-by-category assessment of country performance, along with an explanation of the Economist Intelligence Unit's e-readiness criteria. Pointers are given, as well, to indicate how countries could do more to seize the advantages that the Internet offers.

Connectivity and technology infrastructure

Weight in overall score: 25%

Connectivity: Top ten

Country	Score
Singapore	8.21
Norway	7.79
Switzerland	7.70
Hong Kong	7.70
Sweden	7.44
US	7.38
Australia	7.38
Netherlands	7.38
UK	7.34
Denmark	7.28

Category description: Connectivity measures the access that individuals and businesses have to basic fixed and mobile telephony services, personal computers and the Internet. The affordability, quality and reliability of service—all functions of the level of competition in the telecom market—also figure as determinants, as does the security of content delivered and transactions conducted via the Internet.

No one's perfect, yet. For e-business to take root, countries at a minimum need to ensure secure access to the Internet. Where phone lines are inadequate, computer ownership extremely low and Internet connections prohibitively expensive, e-business has failed to take off. But even in wealthy countries where the infrastructure is reliable and secure, there is tremendous room for improvement. High-speed broadband services are not universally available, and Internet-ready mobile phones are still in their infancy—even in mobile-crazed Scandinavia. No country entirely meets consumer demand for fast, cheap, secure and reliable Internet connectivity.

Deregulation promotes Internet access. How can Internet access be made affordable and accessible? Market competition. Singapore and Hong Kong have the most deregulated telecom markets in the world, followed by northern European countries and the US. At the other end of the spectrum are countries where the state maintains a stranglehold on telecom providers. Turkey's government, for example, is dragging its feet on selling Turk Telekom, which controls not only the country's fixed lines but also mobile telephony and Internet service provision. Such fixed-line monopolies hinder e-business in much of the developing world, as they are most often the largest Internet service providers as well.

The two faces of mobile usage. Three out of four Swedes carry a mobile phone. The reasons are clear: the country is tech savvy and gadget loving, and its liberalised telecom market offers lots of choice at low prices. All this bodes well for e-business. Mobile phone penetration in the Czech Republic is not far behind, at 68%. Yet here the reason for mobile usage is altogether different: the incumbent fixed-line monopoly provides poor service at high prices. In the Czech Republic, as in many developing countries, mobile-phone penetration is high simply because the fixed-line alternative is so unattractive. Mobile usage on its own is not a good indicator of a country's e-business environment. Uniform standards are important in encouraging mobile usage—and here the US falls far short of Scandinavia.

Business environment

Weight in overall score: 20%

Category description: In evaluating the general business climate, the Economist Intelligence Unit screens 70 indicators covering criteria such as the strength of the economy, political stability, the regulatory environment, taxation, competition policy, the labour market, the quality of infrastructure, and openness to trade and investment. The resulting business environment rankings measure the expected attractiveness of the general business environment over the next five years (2002-06). Calculated regularly as part of the Economist Intelligence Unit Country Forecasts, these rankings have long offered investors an invaluable comparative index for 60 major economies.

Good for business, good for e-business. Not long ago, the Internet was seen as the engine of a new world of business that would leave “old economy” companies in the dust. The consensus now is that the Internet makes sense only when applied within the framework of traditional business rules. That said, it is clear that all types of companies and every industry can apply e-business solutions to improve efficiency and streamline operations. Today, business is e-business, and vice versa. For this reason, countries that score highly in the Economist Intelligence Unit’s business environment rankings—those with stable governments, strong economies, developed legal and regulatory systems, and flexible labour markets—are generally also the best places to do e-business. Countries where competition is restricted and legislation is cumbersome are less e-ready.

The Dutch model. The Netherlands scores highly in all the categories that the Economist Intelligence Unit considers crucial for doing business. It has a stable political framework. Its economy is characterised by low inflation, steady growth and openness to foreign trade. Competition policy is well developed. Taxes are low by European standards and financing is readily available. Infrastructure, especially telecom infrastructure, is excellent. The Netherlands is well ahead of its neighbours in labour market deregulation.

Thus the Netherlands takes first place in the business environment rankings. Not surprisingly, it is also near the top in the e-readiness rankings. The Netherlands has perhaps the strongest B2B infrastructure in Europe, and Dutch multinationals are using cutting-edge technology to improve everyday business practices. ING Bank, for example, equips its insurance salesforce with wireless Internet access. Shell, a Dutch oil giant, has developed innovative ways of combining real-world and web-based training.

Compare the Netherlands with one of Western Europe’s e-business slowpokes, Italy. Italy places 22nd in both the business environment and e-readiness rankings. It suffers from political instability, huge public debt and an over-regulated labour market. In this environment, e-business takes longer to develop. Only 6% of Italians shop online, and B2B e-commerce accounts for less than 1% of total commerce.

Business environment:

Top ten

Country	Score
Netherlands	8.82
Canada	8.72
Finland	8.66
UK	8.65
US	8.63
Switzerland	8.59
Denmark	8.54
Singapore	8.51
Sweden	8.51
Hong Kong	8.48



Consumer and business adoption

Consumer and business adoption: Top ten

Country	Score
Austria	9.05
Australia	8.85
UK	8.80
Netherlands	8.65
US	8.60
Canada	8.40
Denmark	8.40
Germany	8.35
Hong Kong	8.30
Ireland	8.25

Weight in overall score: 20%

Category description: The e-readiness rankings assess how prevalent e-business practices are in each country. What share of retail commerce is conducted online? To what extent is the Internet used to overhaul and automate traditional business processes? And how are companies helped in this effort by the development of logistics and online payment systems, the availability of finance and state investment in IT?

Spending on IT infrastructure builds e-business. Many of the countries that score highly in the e-readiness rankings also allocate a large portion of public spending to information technology, or enact incentives that encourage private-sector infrastructure investment. Relatively small economies, such as Austria and the Netherlands, must dedicate a larger share of total spending to IT infrastructure than massive economies, such as the US and Germany, in order to maintain similar levels of infrastructure; their ability to commit these funds indicates a strong commitment to e-business. Even countries further down on the list—including Korea, Portugal and Brazil—are also devoting tremendous resources to IT development, signalling their determination to become e-business leaders.

Logistics and delivery systems play a role. E-business relies on more than phone lines and PCs. It requires electronic payment systems and populations that habitually use credit cards. It also mandates efficient and secure postal, courier and other logistics systems involved in the delivery of goods purchased online or shipped as part of just-in-time manufacturing systems. Those ranking highly in this category have efficient, expansive, reliable and cost-effective delivery systems.

Innovative start-ups need financing. To move business online, companies need the help of other companies, from website designers, to payment facilitators, to hosting providers. These small, innovative firms depend on start-up capital. In Western Europe, North America and Australia, financing is readily available from a variety of sources and on generally good terms. In many emerging markets, however, banks function poorly, stock markets are embryonic and venture capital is practically unknown. Lack of financing is hampering e-business development throughout much of the world.

Legal and policy environment

Weight in overall score: 15%

Legal and policy: Top ten

Country	Score
Australia	8.85
Sweden	8.80
UK	8.80
Finland	8.80
Switzerland	8.80
Germany	8.70
Ireland	8.70
Denmark	8.70
Austria	8.60
France	8.60

Category description: E-business development depends both on a country's overall legal framework and specific laws governing Internet use. How easy is it to register a new business, and how strong is protection of private property, in particular intellectual property, which can easily fall victim to digital-age piracy? Governments that support the creation of an Internet-conducive legal environment—both through policy and enforcement—get high scores. Those more concerned with censoring content and controlling the web score lower.

There's a role for government. It's easy for governments to declare ambitious Internet-development plans, but such declarations need to be followed by deeds. Even where funds are in short supply, action can be taken to ensure that the legal system supports e-business. Developing a consistent and predictable legal and regulatory framework to address emerging e-business legal concerns is a good start. This can include ensuring a level playing field in the telecommunications industry, where old monopolists often retain effective control of the market, or passing legislation that extends to the Internet proper measures to protect intellectual property rights, or directing law-enforcement agencies to protect online security. It also means resisting the temptation to try to censor or filter Internet content, as is often the case in the Islamic world—and in countries like Thailand, the Philippines and Kazakhstan.

Governments can lead by example. Putting public services online can help demonstrate the benefits of e-business while saving taxpayers time and money. The UK and Singapore are standouts in shifting paperwork-intensive processes to more streamlined web-based procedures. A good place for governments to start is to simplify the registration of a new business so that it can be accomplished in a single step via the Internet. This frees local entrepreneurs from red tape and makes the country a more attractive investment destination for foreign capital.

Social and cultural infrastructure

Weight in overall score: 15%

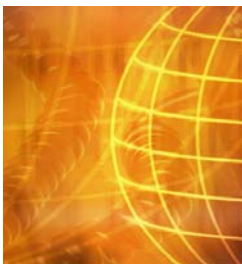
Social and cultural: Top ten

Country	Score
US	9.25
Sweden	9.25
Finland	9.25
Canada	9.00
Germany	9.00
Netherlands	9.00
Switzerland	9.00
Denmark	9.00
Austria	9.00
UK	8.75

Category description: Literacy and basic education are preconditions to being able to navigate the web. In addition, the rankings consider a population’s “e-literacy”—its experience using the Internet and its receptivity to it—and the technical skills of the workforce. And because Internet business involves risk-taking, the rankings assess the national proclivity to business innovation and entrepreneurship.

Basic education is not enough. Internet users must have some degree of education. However, basic literacy is not enough. In poor countries where literacy rates are relatively high, such as China, Sri Lanka and Kazakhstan, e-business is often hampered by a shortage of both technically skilled workers and an “e-literate” population that has had exposure to the Internet. In countries where both literacy and e-literacy rates are high, e-business is thriving. Scandinavians, and northern Europeans in general, are highly educated, tech savvy and multilingual. These factors bring the region nearly even with the US in our rankings.

North vs south. Many countries could do better. France, for example, receives high scores for education and literacy yet earns only an 8.25 in this category. There are several explanations. The French tend to start using the Internet at an older age than the typical American or Scandinavian, and many French cling to Minitel, the country’s long-established proprietary service. Less than one-third of the population speaks English, the lingua franca of international e-business. And those who do speak English generally do not achieve the same level of fluency as their Scandinavian, Dutch and German counterparts.



Supporting e-services

Weight in overall score: 5%

Category description: No business or industry can function efficiently without intermediaries and ancillary services to support it. For e-business, these include consulting and IT services, and back-office solutions. The rankings also take into account whether there are consistent, industry-wide technology standards for platforms and programming languages.

Back office takes centre stage. In years past, when assessing a country's e-business environment, attention was focused on consumers. Did they have credit cards? Were they willing to shop online? But with the disappointment of retail e-commerce ventures, as well as the tremendous growth of e-business applications in a corporate setting, attention is now focused on businesses—the efficiency of their internal operations and relations with partners, as well as their interactions with customers. Do firms have access to IT consulting and technical support? Are back-office solutions widely available at a reasonable price? This is an area of increasing importance, and one in which the US and Canada dominate.

Israel leverages its talented population. Israel is close behind and on par with some of the Western European front-runners. Israel, a major exporter of software and high-tech products, is one of the few non-Western countries at the forefront of e-services development. The country is tech savvy, with an exceptionally high share of scientists, and entrepreneurial. Moreover, Israel boasts one of the most vibrant venture-capital sectors outside Silicon Valley. The result has been an ever-growing number of e-consultants, e-marketers and technical-support providers to underpin Israel's high-tech sector.

Governments help set tech standards. An absence of global technology standards is emerging as an inhibitor of e-business growth and efficiency. Although the legend of the Internet is one of self-government, international mediation will be increasingly necessary to reap the benefits of global connectivity. The US General Accounting Office recently joined the debate over the future of XML, the most widely used mark-up language. The GAO's brief was to establish whether XML should be used to standardise government data and promote interoperability. But the agency expressed doubts not only about XML, but also about a plethora of competing standards. The report appears to have shaken up the notoriously slow-moving standard-setting bodies, which have promised to address the shortcomings.

Supporting services:

Top ten

Country	Score
US	9.25
Canada	9.25
Israel	8.75
Germany	8.75
Sweden	8.75
Finland	8.75
Norway	8.75
Switzerland	8.75
Ireland	8.75
Hong Kong	8.50





Conclusion: A national agenda for e-readiness

The Economist Intelligence Unit's e-readiness rankings lend themselves naturally to an action plan for governments seeking to capture the benefits of the Internet and the changes it has wrought.

Connectivity is a necessary first step. Although it is consumers who ultimately drive adoption of the Internet, governments can help ensure that the proper infrastructure is in place, and that its reliability and security are protected. Protecting competition in the communications industry helps speed e-business.

E-business cannot thrive where other forms of business fail. So governments aiming to promote Internet usage need to adopt policies that facilitate growth, promote investment and reduce red tape. Measures that encourage entrepreneurship, including the availability of financing for innovative firms, are helpful.

Creating a conducive legal and regulatory environment is crucial as well. This means not only ensuring that traditional legal safeguards, such as protection of intellectual property

rights, are extended into the digital world, but also training and funding the police and judicial personnel needed to enforce them.

Adopting a coherent and far-reaching government "e-strategy"—particularly one oriented to universal Internet access—provides a vision of the digital future that can inspire both business and civic enthusiasm. Making public services available online, in a citizen-friendly format, helps sustain that enthusiasm and gives governments an opportunity to lead by example—as well as to save time and money.

Adding computer literacy to the basic education curriculum, and technological specialisation to the range of training options, promotes needed skills. Supporting countrywide industry standards helps promote data sharing without stifling competition, as does joining the international dialogue on global standards.

An ambitious list of tasks, even for the world's biggest economies. Yet, as the Economist Intelligence Unit e-readiness rankings suggest, savvy policy and creativity can often trump sheer size and power. Wealth is an obvious advantage, but lack of funds is no excuse for ignoring the potential of the Internet.

LONDON

15 Regent Street
London
SW1Y 4LR1
United Kingdom
Tel: + 44 (0) 20 7830 1007
Fax: + 44 (0) 20 7830 1023
E-mail: london@eiu.com

NEW YORK

The Economist Building
111 West 57th Street
New York, NY 10019
USA
Tel: (1 212) 554 0600
Fax: (1 212) 586 0248
E-mail: newyork@eiu.com

HONG KONG

60/F Central Plaza
18 Harbour Road
Wanchai
Hong Kong
Tel: (852) 2585 3888
Fax: (852) 2802 7638
E-mail: hongkong@eiu.com

www.eiu.com

An Economist Group business

Economist Intelligence Unit

The
Economist