Economist Intelligence Unit

The Economist

The 2003 e-readiness rankings

A white paper from the Economist Intelligence Unit

Written in co-operation with

IBM

About the Economist Intelligence Unit

The Economist Intelligence Unit is the business information arm of The Economist Group, publisher of *The Economist*. Through our global network of over 500 analysts, we continuously assess and forecast political, economic and business conditions in 195 countries. As the world's leading provider of country intelligence, we help executives make better business decisions by providing timely, reliable and impartial analysis on worldwide market trends and business strategies.

More than 500,000 customers in corporations, banks, universities and government institutions rely on our intelligence. In order to meet the needs of executives like these, we provide a full range of print and electronic delivery channels and have developed a portfolio of leading electronic services. These include: **eiu.com**, a virtual library with access to all of our publications and **store.eiu.com**, our transactional site; **viewswire.com** and **riskwire.eiu.com**, which provide daily and operational intelligence on countries worldwide; **Executive Services**, which provides insight and analysis on global business and management trends; and **Data Services**, a portfolio of economic and market indicators and forecasts.

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

Copyright
© 2003 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 any form or by any means, electronic, mechanical, photocopying, recording or otherwise, permission must be obtained from The Economist Intelligence Unit and IBM.

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.

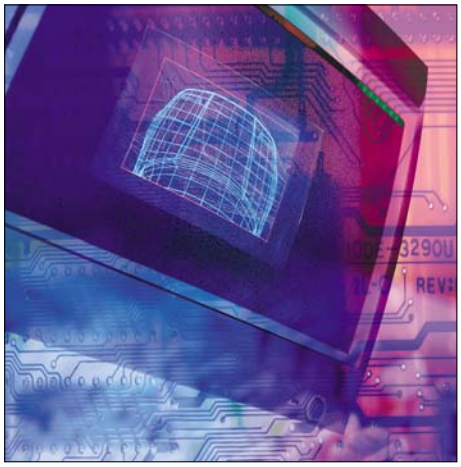
About the 2003 e-readiness rankings

Now in their fourth year, the Economist Intelligence Unit's e-readiness rankings provide an established benchmark for countries to compare and assess their e-business environments. "E-readiness", or the extent to which a market is conducive to Internet-based opportunities, takes into account a wide range of factors, from the quality of IT infrastructure to the ambition of government initiatives and the degree to which the Internet is creating real commercial efficiencies. Covering the world's 60 largest economies, the rankings suggest areas in which government policy and funds can be focused. They also provide a useful guide for multinationals seeking to invest in technologically innovative countries and tailor their Internet strategies to local conditions.

Nearly 100 quantitative and qualitative criteria, organised into six distinct categories, feed into the e-readiness rankings. Since launching the rankings in 2000, we have repeatedly upgraded and refined our methodology. This year, our model is unchanged from the previous ranking, making direct annual comparison of scores possible for the first time. The majority of data is sourced from the Economist Intelligence Unit and Pyramid Research. Qualitative criteria are assessed by the Economist Intelligence Unit's extensive network of country experts, and their assessments are reviewed by our top economists. (For an account of the criteria used in the ranking and country-by-country scores, see the appendix on page 24.)

For both the 2002 and 2003 rankings, the Economist Intelligence Unit worked in association with IBM's Institute for Business Value, a leader in e-business strategy that provides senior executives with insights into today's technology-driven marketplace. IBM worked together with the Economist Intelligence Unit to build the rankings model. The Economist Intelligence Unit is entirely responsible for the rankings and the content of this white paper.

"Dynamic global challenges create uncertain and volatile environments," says Jeremy Andrulis, Public Sector Lead at IBM's Institute for Business Value. "The e-readiness framework provides a mechanism to help business and government executives fuse business and technology decisions to create focused, resilient and responsive organisations."



The 2003 e-readiness rankings

Executive summary

It has been three years since the dotcom meltdown of 2000, but the painful adjustment is not over, particularly in the US, the locus of the Internet boom. Financing for start-ups in the US has dried up, and the economy is still absorbing thousands of workers laid off from dotcom flops. The global economic malaise has undercut IT spending and scaled back public infrastructure initiatives. Yet the Internet revolution ploughs forward—in the US and around the world—chastened and refocused, yet more powerful than ever. The Internet is reinventing the way that businesses interact with their customers, with other businesses and, increasingly, with governments.

"E-transformation has become the silent revolution," says Daniel Franklin, Editorial Director of the Economist Intelligence Unit. "The frenzy of the dotcom years has gone, but the quiet work of harnessing the Internet to drive efficiencies in both business and government has, if anything, intensified." While the global economic downturn has depleted financing for start-ups, it has spurred bricks-and-mortar businesses to capitalise on the Internet's potential as never before. "The Internet offers solutions to the twin priorities in these harsher economic times: saving costs and reaching customers," says Mr Franklin.

Among the global trends evident over the past year are advancing deregulation of the telecoms industry; increased competition between cable, mobile-phone, fixed-line and Internet service providers; heavy migration of government services online; quick uptake of e-banking services; and expansion of mobile-phone-based commerce. There has been a wave of Internet-friendly legislation, particularly focusing on payment systems and related security issues. And governments around the world are

© The Economist Intelligence Unit Limited and IBM Corporation 2003

developing bold plans for getting citizens connected, putting government services online and boosting e-business. More than ever, countries embrace the Internet as a conduit to the world economy.

2003 e-readiness scores

There is a good deal of consistency between the Economist Intelligence Unit's 2003 rankings and those released last year. No country has moved more than five places up or down, and regions that stood out before—particularly Western Europe and North America—remain dominant. Judging by scores alone, there appears to be a high degree of uniformity among top-rated countries: only 0.47 points (out of a possible 10) separates 1st place from 10th. The US fell from 1st to 3rd place despite a 0.02 rise in its score.

But the stories of individual countries are compelling. Sweden has deposed the US for the top slot by wholeheartedly embracing the Internet society and revolutionising the way that business, including government business, is done. Hong Kong and South Korea have moved up four and five places, respectively, as the effects of state-of-the-art infrastructure and ambitious government plans come to fruition. And governments in nearly all 60 countries have made significant investments over the past year, introduced bold new policies and expanded the reach of the Internet.

Among the main conclusions suggested by this year's rankings:

Scandinavia leads

When the Economist Intelligence Unit e-readiness rankings were introduced in 2000, the US led the pack. With the downturn in the US economy and the evaporation of venture capital, however, challengers—particularly Scandinavian countries—have gained ground. Sweden is now the front-runner, and Denmark (2nd place), Finland (6th) and Norway (7th) have each advanced significantly over last year's rankings. What sets Scandinavia apart is the extent to which the Internet has pervaded the marketplace and reshaped business transactions, and the eagerness with which citizens have incorporated Internet technology into their daily routines. In a phrase, Scandinavians wholeheartedly embrace the information society.

In contrast to their northern neighbours, Southern Europeans regard the Internet sceptically, and are reluctant to move business online. Among the region's stragglers are Italy (21st), Portugal (22nd), Spain (23rd) and Greece (26th).

Regional champions

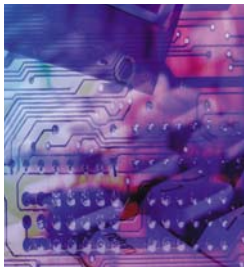
Western economies continue to dominate the top slots in our ranking.

© The Economist Intelligence Unit Limited and IBM Corporation 2003

They have the right conditions for e-business: healthy macroeconomic, political and regulatory environments; highly developed IT infrastructure; and a large pool of regular—and relatively wealthy—Internet users. But every region has pockets of promise. In Asia-Pacific, Australia (9th) is ahead in a competitive field, thanks partly to early and intensive telecoms deregulation. South Korea (16th) is making the largest strides, spurred by an ambitious government and heavy infrastructure spending. In the Middle East, Israel (25th) holds the lead by leveraging an entrepreneurial culture and an abundance of IT experts. And in Eastern Europe, the Czech Republic (27th), Hungary (29th) and Poland (30th) are expanding broadband coverage and promoting competition among Internet service providers, to good effect.

Small countries have an edge

Economic might influences, but does not determine, e-readiness. The world's largest economies—the US, Germany and Japan—have taken 3rd, 13th and 24th place, respectively, in our rankings. They are outstripped by smaller, nimbler economies, such as Sweden (1st), Hong Kong (10th) and Singapore (12th), which are better able to implement nationwide infrastructure projects. The city-state of Singapore, for example, is the first country in the world to have nationwide broadband coverage.



Economic downturn affects e-readiness

Most countries have improved their scores since last year, thanks to continued rollout of broadband services, uptake of mobile telephony, and a spate of Internet-related legislation and government programmes. Where there has been a slight reduction in score, economic and political turmoil are to blame, dampening business prospects across the board, not just e-business. Canada and Mexico, for example, are intimately tied to the US economy, and have suffered the effects of reduced trade and investment. Regional economic woes have had an impact on Brazil, Chile and Venezuela. In some European countries, too, business conditions have deteriorated compared with last year.

No country is a back-pedaller

But no country is a back-pedaller. Even in tough economic times, governments are pushing through IT infrastructure projects; programmes to bring the Internet to schools, post offices and other public venues; and legislation to encourage e-business and safeguard its participants. They are reducing connection charges by liberalising local telecoms markets, subsidising public access and encouraging price competition. And they are putting government services online at a fast clip.

© The Economist Intelligence Unit Limited and IBM Corporation 2003

Economist Intelligence Unit e-readiness rankings, 2003

2003 e-readiness ranking (of 60)	2002 ranking	Country	2003 e-readiness score (of 10)	2002 score
1	4 (tie)	Sweden	8.67	8.32
2	7	Denmark	8.45	8.29
3 (tie)	2	Netherlands	8.40	8.40
3 (tie)	1	US	8.43	8.41
3 (tie)	3	UK	8.43	8.38
6	10	Finland	8.38	8.18
7	11 (tie)	Norway	8.20	8.17
8	4 (tie)	Switzerland	8.26	8.32
9	6	Australia	8.20	8.30
10 (tie)	9	Canada	8.20	8.23
10 (tie)	14	Hong Kong	8.20	8.13
12	11 (tie)	Singapore	8.18	8.17
13	8	Germany	8.15	8.25
14	13	Austria	8.09	8.14
15	15	Ireland	7.81	8.02
16	21	South Korea	7.80	7.11
17 (tie)	16	Belgium	7.78	7.77
17 (tie)	18	New Zealand	7.78	7.67
19	17	France	7.76	7.70
20	20	Taiwan	7.43	7.26
21	19	Italy	7.37	7.32
22	24	Portugal	7.18	7.02
23	22	Spain	7.12	7.07
24	25	Japan	7.07	6.86
25	26	Israel	6.96	6.79
26	23	Greece	6.83	7.03
27	27	Czech Republic	6.52	6.45
28	28	Chile	6.33	6.36
29	29	Hungary	6.23	6.05
30	31	Poland	5.57	5.52

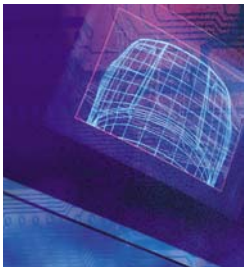
Source: Economist Intelligence Unit

© The Economist Intelligence Unit Limited and IBM Corporation 2003

Economist Intelligence Unit e-readiness rankings, 2003

2003 e-readiness ranking (of 60)	2002 ranking	Country	2003 e-readiness score (of 10)	2002 score
31 (tie)	30	Mexico	5.56	5.67
31 (tie)	33	South Africa	5.50	5.45
33	32	Malaysia	5.55	5.50
34	36	Slovakia	5.47	5.00
35	35	Argentina	5.41	5.14
36	34	Brazil	5.25	5.31
37	38	Colombia	4.86	4.77
38	37	Venezuela	4.75	4.91
39	40	Turkey	4.63	4.37
40	41	Bulgaria	4.55	4.25
41	39	Peru	4.47	4.43
42	46	Thailand	4.22	3.86
43	44	Romania	4.15	4.00
44	42	Sri Lanka	4.13	4.05
45	47	Saudi Arabia	4.10	3.77
46	43	India	3.95	4.02
47	49	Philippines	3.93	3.72
48	45	Russia	3.88	3.93
49	50	Ecuador	3.79	3.68
50	51	China	3.75	3.64
51	48	Egypt	3.72	3.76
52	53	Iran	3.40	3.20
53	52	Indonesia	3.31	3.29
54	54	Ukraine	3.28	3.05
55	55	Nigeria	3.19	2.97
56	56	Vietnam	2.91	2.96
57	57	Pakistan	2.74	2.78
58	58	Algeria	2.50	2.70
59	59	Kazakhstan	2.52	2.55
60	60	Azerbaijan	2.37	2.38

Source: Economist Intelligence Unit



© The Economist Intelligence Unit Limited and IBM Corporation 2003

Economist Intelligence Unit e-readiness rankings, 2003
Western Europe

2003 rank in region	2002 rank in region	Country	Overall ranking (of 60)	e-readiness score (of 10)
1	3 (tie)	Sweden	1	8.67
2	5	Denmark	2	8.45
3 (tie)	2	UK	3 (tie)	8.43
3 (tie)	1	Netherlands	3 (tie)	8.43
5	7	Finland	6	8.38
6	8	Norway	7	8.28
7	3 (tie)	Switzerland	8	8.26
8	6	Germany	13	8.15
9	9	Austria	14	8.09
10	10	Ireland	15	7.81
11	11	Belgium	17 (tie)	7.78
12	12	France	19	7.76
13	13	Italy	21	7.37
14	16	Portugal	22	7.18
15	14	Spain	23	7.12
16	15	Greece	26	6.83

Source: Economist Intelligence Unit

Overview of region

More than ever, Scandinavia dominates the Economist Intelligence Unit's e-readiness rankings. The region, and indeed most of Northern Europe, has the right conditions for e-business: healthy macroeconomic, political and regulatory environments; highly developed IT infrastructure; and a large pool of regular—and relatively wealthy—Internet users. What sets Scandinavia apart is its wholehearted embrace of the information society. Swedes are among the most active consumers of online government services and are eagerly adapting spending patterns to the Internet age, buying everything from books to electricity, food, clothes, cars and financial services online, often using Internet-enabled mobile phones to do so.

It is this "everyday, every way" usage that differentiates the north from the south. In Southern Europe, e-commerce is more occasional, and credit-card usage in general is less pervasive. (In Italy, for example, e-tailers often send bills by post.) For cultural and other reasons, Southern Europeans are reluctant to move business online.

© The Economist Intelligence Unit Limited and IBM Corporation 2003

Outside Scandinavia, Europeans continue to use the Internet mainly for information and communication. But online shopping and banking are increasingly common. And across Western Europe, core government services are being pushed online. These aim to raise the efficiency and quality of public services for both citizens and businesses. Governments are developing policies that help e-business in other ways—by enacting laws on e-signatures, for example, forcing down telecoms rates and establishing programmes to increase the population of IT specialists. EU authorities are attempting to promote competition and harmonisation in the region's telecoms market, and are setting policy that furthers e-business—for example, rules on VAT for crossborder Internet sales.

Low-cost, high-speed Internet access is essential to further development of e-business in Western Europe, and broadband coverage has been extended dramatically over the past year, particularly in Sweden, Denmark, Belgium and Germany. However, high-speed connections are still in the minority throughout Europe, and Internet-enabled mobile phones are not used extensively. In many countries, large telecoms incumbents dominate the market, inhibiting competition and keeping prices high.

Trends and best practices

Beyond e-banking

Across Europe, financial services are going online. In Germany, roughly 15m customers held a total of 20m online bank accounts in mid-2002—double the number held two years earlier. One-quarter of customers at Sweden's SEB, which has one of the most advanced Internet banking systems in the world, are online, and the bank has been migrating other services, including insurance and pension plans, onto the Internet. With SEB's e-finance service, consumers buying via the Internet from companies connected to the system can apply for credit online. Applications are handled within an hour and payments can be made in instalments. Consumers need apply for credit only once; if approved, the credit is good at all companies within the system. Sweden's Nordea bank allows consumers to access bank accounts, check investment portfolios, and buy and sell shares using their WAP-enabled mobile phones. Barclays Bank in the UK offers an Internet-based supply-chain management service that links purchasers and suppliers and facilitates order placement and bill settlement.

British government helps small businesses

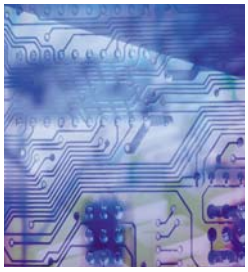
One of the world's strongest and

© The Economist Intelligence Unit Limited and IBM Corporation 2003

most innovative government projects supporting e-business is "UK Online for Business", launched in September 2000. The programme—backed by £67m in government funding over three years—set up a support network of 400 advisers, made available through a variety of channels, including an Internet portal, a call centre and a dedicated helpline; and a partnership programme designed to facilitate the sharing of best practices among small- to medium-sized businesses (SMEs). An ambitious mass-media marketing campaign is credited with raising awareness of the programme and bringing in hundreds of thousands of clients. The government hit its target of getting 1.5m SMEs online by the end of 2002 (and did so 18 months early).

German government catches up

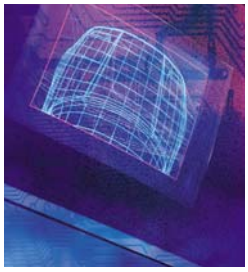
The German government's "BundOnline 2005" initiative (launched in September 2000, later than e-government programmes in other EU countries), shows that slow-off-the-mark governments can catch up. BundOnline aims to provide electronic access to nearly 400 federal services by 2005. Its €1.65bn budget is being used to foster development of technology, including payment systems, encryption techniques and a procurement platform. Because a central infrastructure was put in place before services went online, Germany has avoided some of the bottlenecks experienced by EU countries that developed services earlier. Uptake has been high. The Employment Office Online fills more than half a million vacancies a year. The government's procurement platform, "E-Vergabe", can manage the entire bidding process via the Internet, and is expected to generate government savings of around 10% per year.



Competition helps broadband uptake

Uptake of broadband services has been influenced in part by timing: countries that launched services earlier (including Sweden, Germany and the Netherlands) display higher levels of uptake. Another important determinant is prices, which in turn depend in large part on the degree of competition between cable and telecoms firms. In countries where there is significant competition, cable operators have upgraded their networks in order to compete with telecoms companies' DSL offerings. This has driven down prices. Thus Sweden has among the lowest broadband prices in Europe and the highest levels of penetration. Price reductions have also been driven by regulatory pressure: broadband price cuts forced by telecoms regulators in the UK and France in 2002 have brought prices closer to the EU average.

© The Economist Intelligence Unit Limited and IBM Corporation 2003



Economist Intelligence Unit e-readiness rankings, 2003
The Americas

2003 rank in region	2002 rank in region	Country	Overall ranking (of 60)	e-readiness score (of 10)
1	1	US	3	8.43
2	2	Canada	10	8.20
3	3	Chile	28	6.33
4	4	Mexico	31	5.56
5	5	Argentina	35	5.41
6	6	Brazil	36	5.25
7	7	Colombia	37	4.86
8	8	Venezuela	38	4.75
9	9	Peru	41	4.47
10	10	Ecuador	50	3.79

Source: Economist Intelligence Unit

EU strengthens regulatory framework

Among the top priorities of the EU's "eEurope 2002" initiative was to modernise the rules governing Internet access and create a single market for telecoms services. A new EU telecoms package was approved in early 2002 with directives on access and interconnection, authorisations, universal service and users' rights. The new regulatory framework requires companies deemed to have a significant market share to comply with rules on fair access to networks, including setting interconnection and access prices according to costs. Member states are to ensure full implementation of the new regulatory package by May 2003. To encourage fair competition, the European Commission has also drawn attention to telecoms players it believes to be practising unfair pricing, such as Deutsche Telekom.

Overview of region

For the first time since the Economist Intelligence Unit's e-readiness rankings were introduced in 2000, the US is not at the top of the heap. It ranks 3rd of 60 countries (though still 1st in the Americas region). There are several reasons for its slight, but ignominious, fall. The US was the locus of the dotcom boom and it is there that the dotcom bust, and the drop in IT investment in general, is most keenly felt. Venture capitalists, having been badly burned, now spurn even the most innovative and promising start-ups. The economic downturn in the US has further eroded

© The Economist Intelligence Unit Limited and IBM Corporation 2003

the climate for e-business. And the ongoing campaign against terrorism and war in Iraq are diminishing political stability in the US, foreboding further decline in the country's position.

That said, much of the US's decline can be chalked up to Scandinavia's rise. Sweden and its neighbours are making aggressive strides towards creating a truly wired society, and the inevitable result is that other countries have fallen relative to them. The US is still a strong player: it is a fountainhead of Internet-related technology; the quality and availability of its e-consultancy and back-office solutions are unparalleled; and online shopping is commonplace. Mixed "clicks and bricks" retailers are thriving, combining the efficiency gains of online operations with the logistical and marketing advantages of a traditional, offline market presence. Up north, Canadians benefit from having among the lowest business and household broadband prices—and highest penetration rates—in the world, driven by healthy competition among telecoms firms, cable companies and ISPs. In both Canada and the US, e-government is taking off, and public services are rapidly migrating online.

E-commerce in Latin America is concentrated in four markets: Chile, Mexico, Argentina and Brazil. In these countries sophisticated Internet access options, such as satellite and broadband services, are being introduced. But there are persistent inadequacies dragging down prospects in Latin America, even in these relatively developed markets. These include inadequate IT infrastructure, a vast digital divide between rich and poor, a widespread shortage of IT skills, distrust of electronic payment systems and distance buying, low penetration of credit cards and PCs, and a lack of business and consumer financing. Deteriorating economic and financial conditions in the region have slowed Internet adoption by pushing prices for IT hardware and connections out of reach for many and depressing spending at all levels.

Trends and best practices

Tax rules boost online shopping

The US stands out for the depth and breadth to which the Internet has penetrated its consumer market. The country has among the highest proportion of small- and medium-sized enterprises (SMEs) online, and sales continue to grow steadily. While e-commerce accounts for less than 5% of retail sales overall, it reaches 20% in some sectors, including software, travel and tourism services, and music. The Internet Tax Freedom Act has been a boon here, by placing a moratorium

© The Economist Intelligence Unit Limited and IBM Corporation 2003

on interstate e-commerce transactions. Thirty-five per cent of online shoppers in the US cite the lack of sales tax as a reason for shopping online.

Putting SMEs online in Latin America

In 2001, 50-70% of Latin American enterprises had access to the Internet. By 2002, nearly all companies with 200 or more employees had corporate websites. However, only a minority carry out online transactions, and the use of e-business applications for customer-relationship management, supply-chain management and enterprise-resource management is light—particularly among SMEs. According to a 2002 survey by the Mexican E-commerce Association, 30% of all tasks at large Mexican companies are handled electronically, but only 2% are at small businesses. And in Colombia, 40-45% of firms with ten employees or more have Internet access, but only a fraction engage in e-business, according to a study by Acopi, an interest group that represents Colombia's SMEs. Foreign providers are trying to boost network computing among SMEs by introducing more attractively priced packages.

Argentina takes advantage of tough times

Argentina's e-business environment, still one of the strongest in the region, has suffered in the country's economic crisis. Still, there are opportunities in misfortune: Argentina is now among the best and cheapest software producers in the world, and global software makers, including IBM, are investing heavily in local facilities. Argentina benefits from having Latin America's most educated population and a private, state-of-the-art telecommunications infrastructure. Twenty-five per cent of all telephone traffic there is dedicated to the Internet, and Argentina hosts 11 of the 15 most popular websites in Spanish.

Closing the digital divide in Brazil

Internet access is still a privilege for the few in Brazil. As part of a government effort to close the digital divide between rich and poor, Correios, the country's postal agency, plans to set up at least one Internet-connected PC in each of its 5,000 offices, with hourly access fees kept low. A companion project, the Permanent Electronic Address, aims to supply every Brazilian with a free, private e-mail account. By 2004, 4.2m people are expected to use the post office terminals. Last year, the government passed the Information Technology Law, and pledged to provide incentives to the computer industry and establish free-access Internet stations in many public facilities.

Making access universal

The key to boosting Internet use in

© The Economist Intelligence Unit Limited and IBM Corporation 2003

Economist Intelligence Unit e-readiness rankings, 2003
Asia-Pacific

2003 rank in region	2002 rank in region	Country	Overall ranking (of 60)	e-readiness score (of 10)
1	1	Australia	9	8.25
2	2	Hong Kong	10 (tie)	8.20
3	3	Singapore	12	8.18
4	6	South Korea	16	7.80
5	4	New Zealand	17 (tie)	7.78
6	5	Taiwan	20	7.41
7	7	Japan	24	7.07
8	8	Malaysia	33	5.55
9	11	Thailand	42	4.22
10	9	Sri Lanka	44	4.13
11	10	India	46	3.95
12	12	Philippines	47	3.93
13	13	China	50	3.75
14	14	Indonesia	53	3.31
15	15	Vietnam	56	2.91
16	16	Pakistan	57	2.74

Source: Economist Intelligence Unit

Latin America is finding ways to connect people without home computers. With about 6m mobile-phone subscribers in Venezuela, the arrival of web-enabled mobile phones is a promising development. In Mexico, Internet cafés have helped meet demand. Microsoft has teamed up with the Mexican government to provide universal Internet access in the country by 2006, part of the Vicente Fox administration's "e-Mexico" project that was officially launched last year. The company is to contribute software, consulting and training to 4,000 computer operators to manage community-based computer centres. Mexico hopes to put 10,000 free Internet kiosks in place to help provide government services as well as reduce the country's digital divide.

Overview of region

Asia's top-ranked countries have some common traits: good infrastructure; high per capita income; substantial (or advancing) telecoms deregulation; low (or falling) transaction costs; strong government commitment to e-commerce; globally

© The Economist Intelligence Unit Limited and IBM Corporation 2003

competitive companies; good education systems; and openness to trade and ideas. In this strong field, Australia stands out for its excellent infrastructure and positive pricing trends. Its telecoms market was fully liberalised in 1997, and spare bandwidth will continue to drive prices down. By contrast, the monopoly of Nippon Telegraph & Telephone (NTT) on local telecoms markets in Japan has kept rates high and hampered Internet development.

Asian governments view the Internet as key to gaining a competitive edge in the regional—and global—marketplace, and they are making increasingly ambitious plans. Singapore has put in place the world's first nationwide broadband network. Hong Kong aims to have 90% of its government services online this year. But South Korea appears to be making the fastest progress of all. President Kim Dae-jung launched a crusade for South Korea's economic transformation based on information technology, and the cabinet has established e-commerce as one of the key objectives of social and economic development. The saturation of densely populated urban commercial and residential districts with cheap telephone and broadband networks puts South Korea in a unique position to exploit e-commerce.

At the other end of the spectrum, however, poorer Asian countries are held back by telecoms monopolies, widespread poverty, miniscule credit-card penetration and unhelpful government intervention. The Communications Authority of Thailand holds a monopoly over international Internet connections; the leasing of Internet lines in Thailand costs six times more than in Hong Kong and four times more than in Japan. Infrastructure initiatives in China are ambitious, but not easy to achieve in a huge country where 70-80% of the population lives in the countryside. China's Internet development is also stifled by censorship and competition among government agencies for regulatory control. In India, rampant theft of user names and passwords has eroded confidence in e-commerce.

Trends and best practices

E-business extends to all major industries in Hong Kong

Hong Kong, a shipping and services hub, was among the first places in Asia to embrace electronic commerce. All but the smallest logistics companies have been using electronic data interchange since the early 1980s, and it has been a smooth transition to the Internet. In June 2002 the Economic Services Bureau announced it had chosen consulting firm Accenture to develop the business model for its

© The Economist Intelligence Unit Limited and IBM Corporation 2003

e-commerce trade platform, which will manage the flow of cargo and documents online. In the retail sector, bar-coding and point-of-sale systems for inventory control are widespread, data-mining technology is widely applied, and Internet shopping is commonplace. In manufacturing, automation of ordering, production, sale and distribution systems is highly advanced. E-business among financial institutions is even more pronounced. Half of foreign-exchange trade at HSBC (UK), Hong Kong's largest bank and one of the largest foreign-exchange market makers in the world, takes place online.

Internet development now essential to government strategies

Across the region, the Internet is now an essential component of government strategy. China has prioritised the development of e-commerce and Internet infrastructure (particularly broadband) in its Tenth Five-Year Plan (2001-05). In many governments, new agencies have been formed to carry out development plans. Singpaore's Infocomm Development Authority (IDA), established in 1999 as a result of a merger between the National Computer Board and the Telecommunications Authority of Singapore, has performed exceptionally. More recently, the Korea Institute for Electronic Commerce was established to facilitate government-industry co-operation in developing e-commerce infrastructure and setting internationally consistent standards. Following a reorganisation of Thailand's government, a new Ministry of Information and Communications Technology was formed in October 2002, bringing under it all agencies involved in implementing IT policy.

Australian government focuses on security issues

Among the most important ways governments can maintain a sound e-business environment is to tackle security issues as they arise. Last year, the Australian National Assembly approved a revision of the Digital Signature Law to give digital signatures that use fingerprint,- voice- and iris-recognition techniques, and other state-of-the-art forms of biometric technology, the same legal status as those based on conventional authentication techniques. And Australia's federal Cybercrime Bill, which took effect in 2002, criminalises hacking, virus propagation and website vandalism.

Policies help e-business

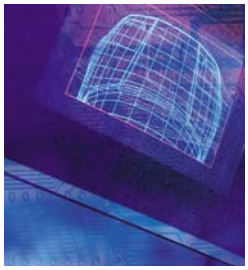
Public funding of e-commerce initiatives provides another measure of government commitment to Internet business. The Singaporean government subsidises the cost of e-business

© The Economist Intelligence Unit Limited and IBM Corporation 2003

consultancy, Internet connections, and hardware and software purchases for qualified companies. Taiwan's Medium-Sized and Small Business Administration is offering subsidies over the next four years to help 20,000 enterprises in 200 local industries set up Internet databases and online trading systems. With these subsidies, the government hopes to prod companies from original equipment manufacturing into global marketing and logistics. To help companies tap into electronic global supply networks, Malaysia's 2002 budget covered development of RosettaNet, an internationally standardised supply-chain management platform, and extended income tax deductions for expenses incurred in its implementation.

Bringing e-business to the government

In addition to creating policies that support e-business, Asian countries are bringing e-business into government itself. Through the ESDlife website, Hong Kong residents can handle much of their government-related business—from paying taxes to booking appointments at Immigration House or the local tennis court—online. Under its 2001 Digital 21 Strategy, the government aimed to have 90% of its services online this year and to introduce a "smart" ID card. Initiatives are not limited to the region's richest countries. In Thailand, the prime minister's office launched an electronic-government procurement project in mid-2002 aimed at lowering costs and improving productivity of public procurement, raising transparency in government and providing better access to government markets. After conducting several online auctions involving private companies, the government reported a 20% cost savings.



Overview of region

Israel, in 25th place, is again the only Middle Eastern country to come in the top half of our rankings. Israel has benefited from its orientation towards the West, its strong entrepreneurial business culture, its leading role in the development of Internet-related technology, and the rapid consumer adoption of PCs and mobile phones. Nevertheless, e-commerce has been relatively slow to take off there. Concern about payment security, a preference for traditional offline shopping and a dearth of Hebrew web content are partly to blame. The high penetration of mobile phones may spell better luck for m-commerce.

Israel is trailed by Turkey in distant 39th place. Turkey's e-readiness is improving with the development of broadband infrastructure, and is also

© The Economist Intelligence Unit Limited and IBM Corporation 2003

supported by an entrepreneurial culture. But e-commerce there is still largely confined to major urban centres.

Among African countries, South Africa has taken the lead in promoting the Internet and e-commerce. The current government is committed to expanding public access to the Internet, though the country also benefits from infrastructure put in place during the apartheid period. Like Israel, South Africa has been hampered by lack of competition in the telecoms market, but also like Israel, it is moving towards greater liberalisation. While South Africa is unquestionably the region's most mature e-commerce market, online sales remain low by global standards—just 0.1% of total retail sales in 2001. And much of the recent growth in Internet usage and e-commerce is among white urban professionals, a small minority of the population. Relatively low pay has driven the country's IT workers abroad, and an estimated 20,000 IT jobs have gone unfilled this year.

In many Middle Eastern and African countries, social and cultural factors, decrepit fixed-line networks and widespread poverty preclude a strong e-business environment. While governments are promoting upgrades of technology and infrastructure, jockeying to put their countries in a more competitive position in the global economy, they remain suspicious of the Internet and are keeping a tight rein on content.

Trends and best practices

Tightening restrictions on content

In Saudi Arabia, all Internet connections are routed through

Economist Intelligence Unit e-readiness rankings, 2003
Middle East and Africa

2003 rank in region	2002 rank in region	Country	Overall ranking (of 60)	e-readiness score (of 10)
1	1	Israel	25	6.96
2	2	South Africa	31 (tie)	5.56
3	3	Turkey	39	4.63
4	4	Saudi Arabia	45	4.10
5	5	Egypt	51	3.72
6	6	Iran	52	3.40
7	7	Nigeria	55	3.19
8	8	Algeria	58	2.56

Source: Economist Intelligence Unit

© The Economist Intelligence Unit Limited and IBM Corporation 2003

government hubs that filter "unsuitable" content. In Turkey, a new media law went into force in mid-2002 that puts the Internet under the same regulations as broadcast media, reducing the freedom of expression that Turkish websites had hitherto enjoyed. A clause in the legislation forbids the media from disseminating pessimism—a term that can be manipulated to include any criticism of the government. Aside from the implications for free speech, the clause will put a damper on local Internet service providers as companies move sites out of the country to avoid run-ins with authorities.

Reducing rates in Saudi Arabia and Egypt

Despite its wariness about content, the Saudi government is trying to bolster Internet usage in what is one of the world's fastest-growing markets for home computers. Saudi Telecommunications Corporation (STC) recently introduced DSL technology in major cities, and has pushed for significant cuts in connection and phone charges for 2003. STC says it will service 3.3m regular Internet users by 2004. The Egyptian government is attempting to improve public access by providing free connections (excluding call charges). Under a new system promoted by the Ministry of Communications and involving the state-owned telecoms operator, Telecom Egypt (TE), ISPs collect 70% of call revenues from TE, rather than selling subscriptions. ISPs say that there has been an immediate rise in usage. TE now plans to promote Internet use among businesses by cutting fees for ISDN lines.

Monopolies in Israel and South Africa

The development of e-commerce in South Africa is hindered by slow connection speeds and the limited availability of broadband outside urban centres. The state's monopoly telecoms provider, Telkom, has been slow to adopt new technology. Progress in e-readiness will in part be dictated by expected telecoms reform and the introduction of competition to the market. Meanwhile, the wider availability of satellite and cable access may erode Telkom's position and increase access options for the public. In Israel, state-owned carrier Bezeq is partly to blame for the country's relatively slow adoption of the Internet and e-commerce. Bezeq's inadequate copper infrastructure has meant slow and unstable connections. In March 2002, however, cable companies were granted licences to provide high-speed access, effectively ending Bezeq's monopoly on Internet connections.

Empowering the majority in South Africa

Together, Nigeria and South Africa account for more than 45% of sub-

© The Economist Intelligence Unit Limited and IBM Corporation 2003

Saharan Africa's total GDP. Both are comparatively young democracies. In terms of e-readiness, however, South Africa is far ahead. The government that came to power following the advent of multiracial democracy in 1994 has looked upon telecommunications and the Internet as a means of empowering the majority. The authorities are committed to broadening Internet usage through programmes such as Computers in Schools, e-rate (a 50% subsidy of schools' Internet access costs) and IT training courses. The government is also in the process of formulating a national IT strategy to transform South Africa into a knowledge-based economy.

A plan in Nigeria

E-business in Nigeria faces serious obstacles: inadequate telecoms infrastructure, unreliable power supply and authorities who, by and large, lack the means to push e-business forward. Nevertheless, there are encouraging signs. The government announced a national IT strategy in 2001 designed to make the country "a key player in the information society" by 2005. Part of the plan is to increase PC penetration by boosting the domestic production of computers. Another positive development is the recent licensing of four mobile operators and a second national fixed-line player. The market monopoly long held by Nigeria Telecommunications (Nitel) has been a hindrance to Internet usage. Notoriously inefficient, Nitel has been unwilling to upgrade its ramshackle fixed-line infrastructure, and high charges have left the majority of Nigerians unable to afford a telephone connection, let alone Internet access. Mobile providers will be the main players in the market over the next few years.

Overview of region

Although IT Infrastructure in Eastern Europe continues to be upgraded, it is still insufficient to support a healthy e-business environment. Internet usage is hindered by high telephony charges relative to average incomes, slow and unreliable connections, and low levels of PC ownership. The majority of East Europeans who use the Internet access it from work rather than home. And while the educated and well-to-do have made their way online, large segments of the region's population have little or no experience using the Internet. But there are signs of progress. Hungary has made significant strides over the past year in boosting the quality of Internet connections and expanding broadband coverage. And in the Czech Republic and Poland, increased competition among Internet service providers is leading to better service and lower prices.

© The Economist Intelligence Unit Limited and IBM Corporation 2003

Economist Intelligence Unit e-readiness rankings, 2003
Eastern Europe

2003 rank in region	2002 rank in region	Country	Overall ranking (of 60)	e-readiness score (of 10)
1	1	Czech Republic	27	6.52
2	2	Hungary	29	6.23
3	3	Poland	30	5.57
4	4	Slovakia	34	5.47
5	5	Bulgaria	40	4.55
6	6	Romania	43	4.15
7	7	Russia	48	3.88
8	8	Ukraine	54	3.28
9	9	Kazakhstan	59	2.52
10	10	Azerbaijan	60	2.37

Source: Economist Intelligence Unit

Trends and best practices

Leapfrogging in Russia

In the lower-ranked Eastern European states, a lack of basic telecoms infrastructure is stifling Internet development. Much of Russia, for example, is grossly underserved. As is common in transitional states with outmoded infrastructure, Russian consumers, particularly those in Moscow and St Petersburg, are leapfrogging over fixed-line connections directly to mobile telephony. The number of mobile subscribers in Russia more than doubled in 2002. But mobile phones are still for the privileged, and the migration has helped discourage telecoms operators from upgrading and expanding the fixed-line network, thus precluding widespread Internet use.

E-commerce lags infrastructure development

The gap between Eastern and Western Europe is even greater with regard to e-commerce development than it is for Internet use and connectivity. Online sales in Hungary account for as little as 0.1% of total business revenue, compared with an estimated 2% in the EU. A September 2002 survey of small- and medium-sized enterprises (SMEs) in Poland, conducted by research firm Polish Market Review, shows that although some 80% have Internet access, only 7.7% make purchases online, mainly of office supplies, computers and software. This represents no increase

© The Economist Intelligence Unit Limited and IBM Corporation 2003

over the number of Polish SMEs making online purchases in 2000. Credit-card penetration is low in most of Eastern Europe and online payment systems are unsophisticated. Consumers are wary of buying goods online, and lack confidence in the safe and quick delivery of goods. However, there are encouraging signs. Credit-card ownership is rising in the Czech Republic and Hungary, and both countries have made significant progress in adopting EU standards on e-signatures and other transactional security measures.

More services—particularly banking—are going online

While online sales of electrical appliances, books and music in the Czech Republic have remained steady, sales of airline tickets have grown rapidly, and are the most lucrative area for e-commerce in that country. Meanwhile, financial institutions in the Czech Republic, Hungary and Poland are investing heavily in e-banking services. The charge is being led by foreign banks, particularly those that have not partnered with major domestic players and thus need to compensate for a lack of branch networks. E-banking is increasingly seen by both foreign and domestic companies as an effective way to target the high-income, high-value segment of the retail market. In the Czech Republic, all major banks offer online services, and dedicated Internet bank eBanka had expanded its clientele to 257,000 by mid-2002, from 40,000 at end-2000. Hungary's e-banking market is also developing quickly, and competition is heating up among domestic and foreign players in Poland.

Providing low-cost access in Hungary

In Hungary, a country with a flourishing software sector, the government aims to have 20% of households connected to the Internet within four years' time—and may well meet its target much earlier. The government has also committed itself to providing public Internet access in 1,000 underdeveloped villages. Last summer it took decisive action to ensure affordable access after dominant telecoms operator Matav announced it would cancel Internet services that were not profitable. The government reached a deal with Matav, as well as Vivendi Telecom Hungary, Hungarotel, Monor Tel and Matav subsidiary Emitel, whereby the state agreed to subsidise Internet business with US$12m in funds annually and the telecoms firms promised to pass on the savings to the consumer. New Matav packages offer households discounts of up to 50% on Internet calls. To encourage smaller players, non-Matav operators were offered additional subsidies.

© The Economist Intelligence Unit Limited and IBM Corporation 2003

Conclusion: Governments set the stage

Much of the advancement in Internet usage—and even e-business adoption—can be credited to government initiative. The reverse is also true: government inaction and poorly conceived intervention can be blamed for impeding e-readiness in many countries. No government gets everything right, particularly in developing countries, where Internet technology and strategies are still new and experimental. But the Economist Intelligence Unit's e-readiness rankings suggest that there are clear ways that governments can boost e-readiness in their countries.

The obstacles are manifest and some cannot be easily overcome: widespread poverty means a paucity of credit, reduced spending power and less potential for all kinds of business, including e-business. Economic turmoil can repel investment, squeeze consumer and business financing, and put a damper on all kinds of commerce, not only e-commerce. Ingrained consumer preferences—for seeing and touching goods before buying, for example, or paying in hard cash—will not change overnight. And efforts to overhaul a country's entire system of education, law or government, or to build nationwide infrastructure from scratch, take tremendous reserves of time, money and political will.

But there are other steps that can be taken immediately. Distrust in online payment systems and lack of faith in delivery of goods can be eradicated with targeted legislation and careful regulation. Where laws and safeguards already exist, but citizens remain unaware or uncertain, governments can focus on "marketing" the system to reassure the public that transactions are secure.

E-business can be given a boost with subsidised consulting services and tax incentives that help SMEs put their business online. Consumers can be enticed with tax-free shopping. Governments can improve their countries' business environments by strengthening protections for private property, including intellectual property. And they can signal their support for the Internet by abandoning censorship.

Easy-to-use online government services that not only automate, but also transform interactions with tax authorities, immigration control, and myriad other agencies, rendering business both more efficient and more enjoyable, benefit all. And by finding creative ways to work with the private sector, governments can improve the technological prowess of their operations while being able to concentrate better on core activities.

Internet connections can be made

© The Economist Intelligence Unit Limited and IBM Corporation 2003

affordable through creative government projects that put computers in the public domain and boost domestic manufacture of PCs and mobile phones. Likewise, by pushing forward telecoms liberalisation, governments can lower connection charges, improve technology and increase access options. IT training and visa programmes can help countries meet demand for technical expertise.

The e-business revolution is not led by businesses and consumers alone. Smart government initiatives are boosting the Internet's potential around the world, from Sweden to Hungary, from Canada to South Africa. It is by focusing on these policies that developed countries can confidently forge into the unknown, and developing countries can best compete with wealthy nations on e-business.

© The Economist Intelligence Unit Limited and IBM Corporation 2003

Appendix: Methodology and category scores

Nearly 100 quantitative and qualitative criteria, organised into six distinct categories, feed into the e-readiness rankings. The majority of data is sourced from Economist Intelligence Unit and Pyramid Research. Qualitative criteria are assessed by the Economist Intelligence Unit's extensive network of country experts, and their assessments are reviewed by our top economists. The six categories (and their weight in the model) and criteria are as follows:

1. Connectivity and technology infrastructure

Weight in overall score: 25%

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 telecoms market—also figure as determinants, as does the security of content delivered and transactions conducted via the Internet.

Category criteria: Fixed-line penetration; mobile-phone penetration; Internet penetration; PC penetration; telecoms charges as proportion of disposable income; level of competition in telecoms industry; quality of Internet connections; security of telecoms infrastructure.

2. 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 (2003-07). 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.

3. Consumer and business adoption

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?

© The Economist Intelligence Unit Limited and IBM Corporation 2003

Category criteria: State spending on information technology as proportion of GDP; level of e-business development; degree of online commerce; quality of logistics and delivery systems; availability of corporate financing.

4. Legal and policy environment
Weight in overall score: 15%

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.

Category criteria: Overall political environment; policy towards private property; government vision regarding digital-age advances; government financial support of Internet infrastructure projects; effectiveness of traditional legal framework; laws covering the Internet; level of censorship; ease of registering a new business.

5. Social and cultural infrastructure
Weight in overall score: 15%

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.

Category criteria: Level of education and literacy; level of Internet literacy; degree of entrepreneurship; technical skills of workforce.

6. 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.

Category criteria: Availability of e-business consulting and technical support services; availability of back-office support; industry-wide standards for platforms and programming languages.

© The Economist Intelligence Unit Limited and IBM Corporation 2003

Economist Intelligence Unit e-readiness rankings, 2003
Category scores

	Overall score	Connectivity environment	Business	Consumer and business	Legal and policy adoption	Social and cultural	Supporting e-services
Sweden	8.7	7.9	8.5	9.1	8.9	9.3	9.0
Denmark	8.4	7.7	8.4	8.5	8.8	9.0	9.0
Netherlands	8.4	7.6	8.7	8.6	8.5	9.0	8.8
US	8.4	7.4	8.6	8.7	8.4	9.3	9.3
UK	8.4	7.5	8.6	8.7	8.8	8.8	9.3
Finland	8.4	7.3	8.5	8.4	8.9	9.3	9.0
Norway	8.3	7.1	8.0	9.1	8.6	8.8	9.0
Switzerland	8.3	7.7	8.6	7.7	8.6	9.0	8.8
Australia	8.3	7.7	8.2	8.3	8.8	8.5	8.5
Canada	8.2	6.8	8.7	8.3	8.5	9.0	9.3
Hong Kong	8.2	7.8	8.5	8.4	8.5	7.8	8.5
Singapore	8.2	8.1	8.5	7.9	8.0	8.3	8.5
Germany	8.1	7.2	8.2	8.1	8.6	9.0	9.0
Austria	8.1	6.9	7.9	8.8	8.5	8.8	8.5
Ireland	7.8	6.6	8.5	7.4	8.8	8.3	8.8
South Korea	7.8	7.1	7.4	8.5	8.1	8.1	8.5
Belgium	7.8	6.8	8.2	7.7	8.3	8.3	8.3
New Zealand	7.8	7.4	8.2	7.3	8.2	8.0	7.8
France	7.8	6.8	8.2	7.4	8.6	8.3	8.0
Taiwan	7.4	7.2	8.0	7.7	7.2	7.1	7.0
Italy	7.4	6.8	7.5	6.9	8.2	7.8	8.0
Portugal	7.2	5.9	7.6	7.7	8.3	7.0	7.3
Spain	7.1	6.2	8.0	6.2	8.1	7.5	7.8
Japan	7.1	6.5	7.4	6.6	7.1	8.0	7.8
Israel	7.0	5.9	7.5	5.8	7.1	8.8	8.8
Greece	6.8	6.1	7.0	6.9	8.0	6.5	7.3
Czech Republic	6.5	5.5	7.2	6.7	6.4	7.0	6.8
Chile	6.3	4.5	7.9	5.6	7.7	6.8	7.0
Hungary	6.2	4.6	7.4	6.0	6.7	7.0	6.8
Poland	5.6	3.9	7.0	5.2	5.9	6.5	6.0

Source: Economist Intelligence Unit

© The Economist Intelligence Unit Limited and IBM Corporation 2003

Economist Intelligence Unit e-readiness rankings, 2003
Category scores

	Overall score	Connectivity environment	Business	Consumer and business	Legal and policy adoption	Social and cultural	Supporting e-services
Mexico	5.6	3.2	7.2	5.3	7.3	5.8	6.0
South Africa	5.6	3.3	6.5	5.7	6.6	6.5	6.1
Malaysia	5.6	4.3	7.2	5.5	5.9	5.5	4.8
Slovakia	5.5	4.0	6.5	5.1	5.8	6.5	6.3
Argentina	5.4	4.1	6.0	5.4	5.1	6.8	6.3
Brazil	5.3	2.9	6.3	6.6	5.6	5.5	5.8
Colombia	4.9	3.0	6.1	4.8	5.9	5.0	5.8
Venezuela	4.8	3.0	5.3	5.2	5.7	5.0	5.8
Turkey	4.6	3.4	6.1	3.4	4.9	5.8	5.5
Bulgaria	4.5	3.4	6.2	3.4	5.1	5.3	4.8
Peru	4.5	2.0	6.1	3.7	6.6	5.0	5.5
Thailand	4.2	2.7	6.9	3.3	4.5	4.3	3.5
Romania	4.2	2.5	5.5	3.6	4.6	5.3	4.5
Sri Lanka	4.1	2.2	6.1	3.9	4.6	4.8	3.8
Saudi Arabia	4.1	2.7	6.2	3.1	3.6	5.5	4.3
India	3.9	1.7	6.2	3.0	4.5	4.8	5.8
Philippines	3.9	2.0	6.6	2.9	4.4	4.5	4.0
Russia	3.9	2.2	5.8	2.9	4.4	4.8	4.3
Ecuador	3.8	2.1	5.2	2.9	5.3	4.3	4.0
China	3.8	2.0	6.3	3.0	3.5	4.5	3.5
Egypt	3.7	1.9	5.3	3.1	4.8	4.0	5.0
Iran	3.4	2.0	4.8	1.7	4.5	4.8	4.3
Indonesia	3.3	2.0	5.7	2.6	2.9	3.8	3.1
Ukraine	3.3	1.7	5.3	2.3	3.6	4.3	3.0
Nigeria	3.2	1.1	4.6	2.4	4.1	4.8	3.5
Vietnam	2.9	0.6	5.4	2.4	3.1	4.3	2.0
Pakistan	2.7	1.1	5.3	1.8	3.5	2.5	2.8
Algeria	2.6	1.0	5.2	1.3	2.5	3.3	3.0
Kazakhstan	2.5	1.3	5.4	1.0	2.3	3.3	1.8
Azerbaijan	2.4	1.3	5.3	1.0	2.1	2.5	1.5

Source: Economist Intelligence Unit

© The Economist Intelligence Unit Limited and IBM Corporation 2003

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