Economist Intelligence Unit

The Economist

The 2006 e-readiness rankings

A white paper from the Economist Intelligence Unit

Written in co-operation with
The IBM Institute for Business Value

About the Economist Intelligence Unit

The Economist Intelligence Unit is the business information arm of The Economist Group, publisher of *The Economist* newspaper. Through our global network of over 500 analysts, we continuously assess and forecast political, economic and business conditions in more than 200 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
26 Red Lion Square
London
WC1R 4HQ
United Kingdom
Tel: (44.20) 7576 8181
Fax: (44.20) 7576 8476
e-mail: london@eiu.com

New York
The Economist Intelligence Unit
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
The Economist Building 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

About the IBM Institute for Business Value

The IBM Institute for Business Value develops fact-based strategic insights for senior business executives around critical industry-specific and cross-industry issues. This paper is part of an ongoing commitment by IBM Global Business Services to provide forward-looking industry and business points of view, and to help companies and industries transform their futures.

With consultants and professional staff in more than 160 countries globally, IBM Global Business Services is the world's largest consulting services organisation. IBM Global Business Services provides clients with business process and industry expertise, a deep understanding of technology solutions that address specific industry issues, and the ability to design, build and run those solutions in a way that delivers bottom-line business value.

Boston
IBM Institute for Business Value
One Rogers Street, 3rd floor
Cambridge, MA 02142
USA
Tel: + 617 693-1150
Fax: + 617 693-6483
Email: iibv@us.ibv.com

Amsterdam
IBM Institute for Business Value
Postbus 9999
1006 CE Amsterdam
The Netherlands
Tel: +31 20 513 5131
Fax: + 31 20 513 6390
Email: iibv@us.ibv.com

Beijing
IBM Institute for Business Value
24/F IBM Tower, Pacific Century Place
2A Gong Ti Bei Road
Beijing 100027
China
Tel: +86 10 65391188
Fax: +86 10 65391679
Email: iibv@us.ibm.com

Website: www.ibm.com/iibv

About the 2006 e-readiness rankings

The Economist Intelligence Unit has published an annual e-readiness ranking of the world's largest economies since 2000. The ranking evaluates the technological, economic, political and social assets of 68 countries—including this year's newest additions, Bermuda, Jordan and the United Arab Emirates—and their cumulative impact on their respective information economies.

E-readiness is the "state of play" of a country's information and communications technology (ICT) infrastructure and the ability of its consumers, businesses and governments to use ICT to their benefit. When a country does more online—or, as is increasingly the case, wirelessly—the premise is that its economy can become a more transparent and efficient one. Our ranking allows governments to gauge the success of their technology initiatives against those of other countries. It also provides companies that wish to invest in online operations with an overview of the world's most promising investment locations.

The e-readiness rankings are a weighted collection of nearly 100 quantitative and qualitative criteria, organised into six distinct categories measuring the various components of a country's social, political, economic and of course technological development. The underlying principle behind the rankings is that digital business is at its heart business, and that for digital transactions to be widely adopted and efficient they have to thrive in a holistically supportive environment. E-readiness is not simply a matter of the number of computers, broadband connections and mobile phones in the country (although these naturally form a core component of the rankings); it also depends on such things as citizens' ability to utilise technology skillfully, the transparency of the business and legal systems, and the extent to which governments encourage the use of digital technologies. (For a fuller account of the ranking criteria, please see the appendix.)

The ranking methodology and definitions are continuously updated in order that the rankings remain relevant measures of e-readiness. We have introduced no major changes in 2006, after making several modifications last year. We recognise, however, that the parameters of e-readiness are slowly changing, based on two developments. First, there is increasing convergence within the top tier of countries around a basic level of e-readiness, and many countries in the lower tiers are progressing towards this level as well, in some cases narrowing the gap between them and the "e-leaders". Second, the migration of countries at different development stages towards next-generation connectivity is under way.

In this and previous e-readiness rankings, the Economist Intelligence Unit has worked in co-operation with the IBM Institute for Business Value, a leader in e-business strategy. IBM worked together with the Economist Intelligence Unit to build the rankings model. The Economist Intelligence Unit, however, is entirely responsible for the rankings and for the content of this white paper.

"Economic progress is increasingly dependent on innovations in the use of the technology", says George Pohle, Global Leader, IBM Institute for Business Value. "In economies reaching ubiquitous adoption of the internet and communications technologies, future competitiveness is driven by the creation of new services that exploit the infrastructure. For developing nations, sustained investment in connectivity is still necessary. But policymakers must also focus on new educational approaches that will make their people more sought after in a tightly interconnected world".

Executive summary

With over 1bn Internet users and 2bn mobile-phone users worldwide, and continual progress in most qualitative indicators of technology-related development, the world in early 2006 may be proclaimed ever more "e-ready". This year's e-readiness rankings reflect such progress, as all but two countries have improved their scores from the previous year. Most of the rankings' top players have moved upwards in lock step, and there has been little real movement in the broader ranks from 2005 to 2006 (although the addition of three new countries this year has pushed some down the list).

Just as encouraging is the apparent narrowing of the "digital divide" in some facets of e-readiness. This is particularly evident in basic connectivity: emerging markets are providing the vast majority of the world's new phone and Internet connections. Many developing countries are also enhancing their e-readiness in other ways—for example through the growth of information technology (IT) outsourcing capabilities in countries such as Bulgaria, Vietnam and, of course, India.

Another sort of digital divide is diminishing, in this case between developed countries. Two years ago, the rapid acceleration of broadband adoption in some markets (notably in North Asia) looked like it might create large digital disparities in upper-tier countries. Over the past year, however, the growth rates of early adopters such as South Korea and Japan have stabilised—as would be expected in markets where most households have high-speed connections—while other e-readiness leaders such as Norway and Switzerland have caught up. Broadband connectivity is becoming less of a distinction among e-readiness leaders, and other environmental criteria—such as information security and innovation—have emerged as more telling differentiators.

Of course, the importance of e-readiness cannot be gauged by technology penetration or average Internet access speeds. Returns from e-readiness are realised when countries use information and communications technology (ICT) to boost economic and social development. North America and Western Europe, in particular, have translated investments in ICT into economic benefits. According to the European Information Technology Observatory (EITO), ICT market revenue represented 6.5% of Western Europe's GDP in 2005, and in the past decade ICT has contributed more than one-quarter of the region's labour productivity growth. Such benefits are also visible in the creation of new products and services. EITO, for example, estimates that Europe's market for consumer online content (video, games and music) will quintuple in size to about €16bn (US$20bn) by 2008, surpassing revenue earned from business online content.

A country's level of e-readiness more often than not mirrors its overall economic environment. Consistent economic development usually dictates a higher level of sustained investment in ICT infrastructure and the commitment to policy development. The countries of North America, Western Europe as well as some of the newest European Union (EU) members are the best examples. But it is also a key reason why high-growth regions such as South and South-east Asia are making strides over other developing regions such as Latin America and Sub-Saharan Africa. Nevertheless, all developing regions see returns on even the most basic investment in telecoms or computer networks.

New bridges across the divide

Increasingly, there are signs that countries lagging in the rankings are finding different ways to accelerate their digital development.

The adoption of open-source software provides an example. It has expanded business and public-sector access to IT in Latin America, where the cost of basic packaged software is too prohibitive for many small enterprises and government agencies. For other countries like China (ranked 57th in our 2006 e-readiness league table) and India (53rd), companies are receptive to open source for its ability to generate savings and serve as a cost-effective gateway into next-generation IT platforms. The vast majority of e-mail servers in Chinese businesses reportedly run on Linux-based solutions, and general receptiveness to open-source applications is driving the adoption of IP VPN (Internet protocol-enabled virtual private network) services. And enterprises in India are increasingly investing in open-source software.

Broadband wireless technologies like WiFi and WiMAX are also coming into the picture for markets looking to improve online access. Mobile Internet makes sense for emerging markets, not only because the networks are quicker to roll out than fixed infrastructure, but also because developing countries are comfortable with wireless solutions. Lithuania (38th) is but one of many emerging markets where mobile-phone penetration is several times that of fixed lines, and a sprouting of WiFi hotspots in its capital and other cities has helped to improve overall connectivity for its citizens and businesses (and helped the country jump two spots in the rankings this year).

Carriers in countries with highly competitive service markets are using wireless Internet to

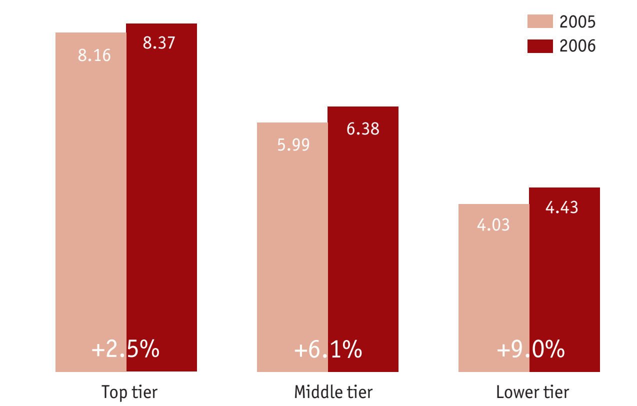
A narrowing divide

Virtually all countries included in the e-readiness rankings have improved their scores over the past year. The improvement, however, both in relative and absolute terms, is greater in the lower tiers of the rankings than at the top. As a result, the distance separating the best from the rest has declined.

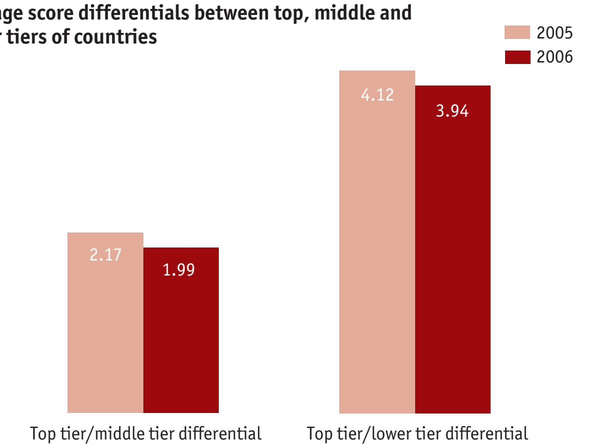
The first chart below compares the average e-readiness scores in 2005 and 2006 of the top 60 countries in the rankings, grouped into a top tier of 20, the middle 20 and a lower 20. While the average score of the top tier improved by 2.5%, that of the middle tier increased by just over 6%, and the lower tier boosted its average score by 9%.

The second chart depicts the differential between the average 2005 and 2006 scores of the top and middle tiers, and also between the top and lower tiers of e-readiness countries. In both cases, the gap separating the top from the lower tiers clearly declined. In absolute terms, the decline in differentials seem small, but they are not insubstantial given a 1-10 scoring scale.

Average scores of top, middle and lower tiers of countries

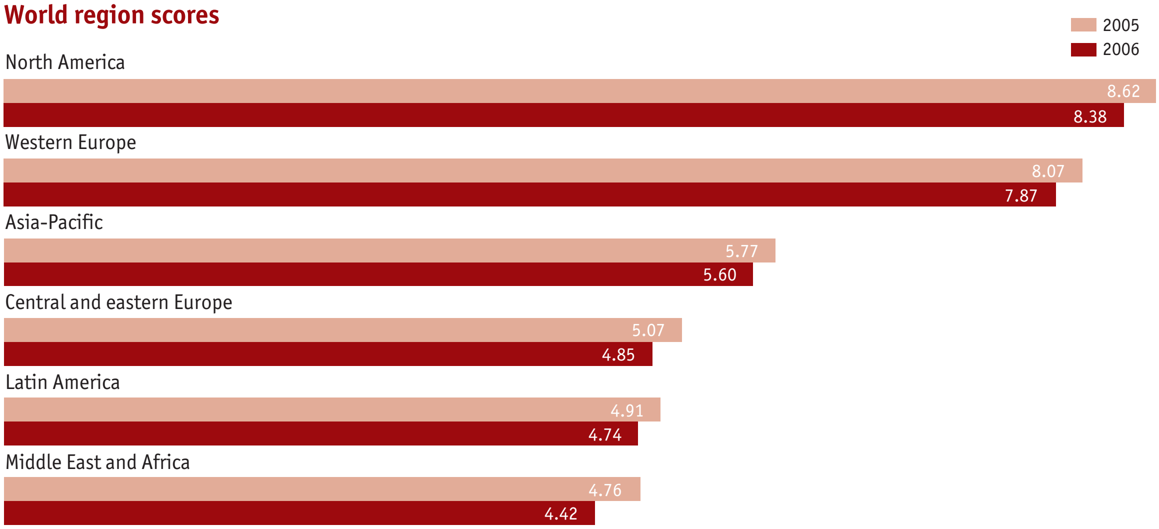


Average score differentials between top, middle and lower tiers of countries



Economist Intelligence Unit e-readiness rankings, 2006

World region scores



Each region's score is based on the e-readiness scores for each of that region's countries covered in our rankings.
Source: Economist Intelligence Unit, 2006.

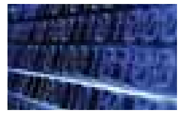
differentiate themselves—PCCW in Hong Kong (10th), for example, has 200 hotspots of free WiFi access for its broadband subscribers. Often it is the government that is striving to create differentiation: Taiwan invested NT$37bn (US$1.2bn) last year as part of the country's four-year M-Taiwan plan for the deployment of a national WiMAX network. In addition to helping improve connectivity, the government hopes the initiative will help develop expertise in wireless network design services, and position the country's telecoms manufacturers as global suppliers of WiMAX-related products.

Voice over IP (VoIP) is another tool used to enhance connectivity—in developed and developing markets alike—by reducing the cost of international calling to help consumers and enterprises. Enlightened policy decisions on voice market access made over the past few years—notably by the EU—have made possible the rapid growth of VoIP services among consumers and businesses. They have also removed the last regulatory impediments in many countries to the integration of voice functionality into existing broadband products and services.

Next-generation IP networks are also expanding, sparking the emergence in several countries of new products and services such as IPTV (Internet protocol television). According to Pyramid Research, a telecoms consultancy, the global IPTV subscriber base will grow from about 5m in 2006 to around 40m by 2010, and more than one-half of these subscribers will reside in Asia. (Regulatory obstacles and the dominance of cable TV are holding IPTV adoption back in some countries, such as the US.)

Soft factors matter too

Technologies, industries and business models in the digital economy evolve rapidly, and our existing group of e-readiness parameters will be adjusted to track their relative influence. But there are also constant factors, many of them non-technical, such as a country's innovation levels and its legal and business environment. For example, Hong Kong's and Singapore's voracious technology adoption has earned them both high e-readiness marks. The two markets, however, lack the intellectual property creation of North America and Western Europe, and



Economist Intelligence Unit e-readiness rankings, 2006

2006 e-readiness rank (of 68)	2005 rank	Country	2006 e-readiness score (of 10)*	2005 score
1	1	Denmark	9.00	8.74
2	2	US	8.88	8.73
3	4	Switzerland	8.81	8.62
4	3	Sweden	8.74	8.64
5	5	UK	8.64	8.54
6	8	Netherlands	8.60	8.28
7	6	Finland	8.55	8.32
8	10	Australia	8.50	8.22
9	12	Canada	8.37	8.03
10	6	Hong Kong	8.36	8.32
11	9	Norway	8.35	8.27
12	12	Germany	8.34	8.03
13	11	Singapore	8.24	8.18
14 (tie)	16	N. Zealand	8.19	7.82
14 (tie)	14	Austria	8.19	8.01
16	15	Ireland	8.09	7.98
17	17	Belgium	7.99	7.71
18	18	South Korea	7.90	7.66
19	19	France	7.86	7.61
20	--	Bermuda*	7.81	--
21	21	Japan	7.77	7.42
22	20	Israel	7.59	7.45
23	22	Taiwan	7.51	7.13
24	23	Spain	7.34	7.08
25	24	Italy	7.14	6.95
26	25	Portugal	7.07	6.90
27	26	Estonia	6.71	6.32
28	27	Slovenia	6.43	6.22
29	28	Greece	6.42	6.19
30	--	UAE*	6.32	--
31	31	Chile	6.19	5.97
32 (tie)	29	Czech Rep.	6.14	6.09
32 (tie)	30	Hungary	6.14	6.07
34	32	Poland	5.76	5.53
35	32	S. Africa	5.74	5.53
36	34	Slovakia	5.65	5.51
37	35	Malaysia	5.60	5.43
38	40	Lithuania	5.45	5.04
39 (tie)	37	Latvia	5.30	5.11
39 (tie)	36	Mexico	5.30	5.21
41	38	Brazil	5.29	5.07
42	39	Argentina	5.27	5.05
43	41	Jamaica	5.03	4.82
44	42	Bulgaria	4.86	4.68
45	43	Turkey	4.77	4.58
46	46	S. Arabia	4.67	4.38
47	44	Thailand	4.63	4.56
48	45	Venezuela	4.47	4.53
49 (tie)	50	Peru	4.44	4.07
49 (tie)	47	Romania	4.44	4.19
51	48	Colombia	4.41	4.18
52	52	Russia	4.30	3.98
53	49	India	4.25	4.17
54	--	Jordan*	4.22	--
55	53	Egypt	4.14	3.90
56	51	Philippines	4.04	4.03
57	54	China	4.02	3.85
58	55	Ecuador	3.88	3.83
59	56	Sri Lanka	3.75	3.80
60	58	Nigeria	3.69	3.46
61	57	Ukraine	3.62	3.51
62	60	Indonesia	3.39	3.07
63	63	Algeria	3.32	2.94
64	62	Kazakhstan	3.22	2.97
65	59	Iran	3.15	3.08
66	61	Vietnam	3.12	3.06
67	64	Pakistan	3.03	2.93
68	65	Azerbaijan	2.92	2.72

* New to the annual rankings in 2006.
Source: Economist Intelligence Unit, 2006.

this acts as a drag on their broader digital progress.

Other "soft" factors count for a lot. Canada (9th), for instance, does not enjoy the connectivity levels of Hong Kong, but it has managed to move past Hong Kong (and a few other countries) up the rankings this year owing to solid improvement in its supporting e-services. The three new countries added this year—Bermuda (20th), United Arab Emirates (30th) and Jordan (54th)—take up various positions along the ranking scale, largely separated by differences in their social, corporate and political (rather than technological) infrastructure.

Whether "soft" or "hard", the multiplicity of factors that influence a country's digital economy means that the process of improving e-readiness is becoming more complex. It also suggests there are multiple paths to e-readiness. Substantial investments in enabling technology are indispensable, and a country's infrastructural, social and economic fundamentals have to align with broader digital ambitions. But it also involves a willingness to experiment with new, untested business models, processes and relationships. The goalposts of e-readiness are beginning to move.

Western Europe: Overview of the region

Western Europe remains unchallenged as home to the world's "most e-ready" countries. The steady digital performance of most of its countries in 2006 means that the relative positions of European countries in the global top ten are mostly unchanged, with Denmark successfully defending its position at the top of the global table. Only Sweden (4th) and Switzerland (3rd) have swapped places. The region remains, as ever, endowed with well-established infrastructure and favourable social and economic environments that foster ICT innovation and adoption. Many—although not all—of its economies have also leveraged their highly educated and skilled workforce to establishing leadership in several fields of digital development.

Connectivity tells part of the story: penetration of mobile-phone subscriptions surpassed 100% in the region as a whole in 2005 (many people have more than one subscription), while that of broadband connections reached the 15% mark, according to Pyramid Research. Broadband wireless is also making headway as WiFi hotspots proliferate, and several of the region's operators are actively bringing IPTV to market.

In 2005, as in past years, pan-European public-sector co-ordination also played a large role in furthering digital progress. The European Union's framework ICT initiative, the eEurope programme, for example, has helped to boost Internet usage in the public sector as well as serve as a catalyst for extending the availability of affordable broadband access.

Business-government transactions performed over the Internet are on the rise in the region, and are a key ingredient of success for top-ten markets such as Sweden, Finland (7th) and Switzerland. A 2005 Eurostat survey found that around one-half of Europe's Internet-connected businesses now use the medium to interact with public authorities, and 90% and 94% do so in Finland and Sweden, respectively. Encouraged by the take-up of e-government services so far, some governments are making aspects of it compulsory—Danish businesses, for example, are now required to carry out transactions with the government electronically.

However, there is no guarantee that returns will always equal investments. Several public-sector IT projects in the United Kingdom (5th) have been plagued by over-spending and delays, one example being the failed implementation of a new computer system for the Child Support Agency, which temporarily left thousands of single parents without maintenance payments. The system is expected to meet its specifications in full in 2007—four years later than initially planned.

Nonetheless, increased ICT spending is helping the UK make some headway in the private sector, and thus it maintains its fifth place ranking this year. ICT spending has enhanced productivity in British business: according to a study by the UK Office of National Statistics, manufacturing companies gain an extra 2.2% in productivity for every 10% of their employees who use computers—and nearly 3% more if they use the Internet. Consumers are also more open to online retail activity. The amount spent online in the UK in 2005—£8.2bn (US$14.8bn)—is approaching the £9.4bn (US$17.1bn) spent in department stores, according to Verdict Research, a retail consultancy.

Economist Intelligence Unit e-readiness rankings, 2006

Western Europe

2006 rank in region	2005 rank in region	Country	Overall ranking (of 68)	e-readiness score (of 10)
1	1	Denmark	1	9.00
2	3	Switzerland	3	8.81
3	2	Sweden	4	8.74
4	4	UK	5	8.64
5	6	Netherlands	6	8.60
6	5	Finland	7	8.55
7	7	Norway	11	8.35
8	8	Germany	12	8.34
9	9	Austria	14 (tie)	8.19
10	10	Ireland	16	8.09
11	11	Belgium	17	7.99
12	12	France	19	7.86
13	13	Spain	24	7.34
14	14	Italy	25	7.14
15	15	Portugal	26	7.07
16	16	Greece	29	6.42

Source: Economist Intelligence Unit, 2006

Trends and best practices

Denmark extends e-readiness leadership to the public sector

Denmark's success in maintaining its top ranking again this year is a reflection of the pervasiveness of ICT adoption across all aspects of the economy and civil life. Last year, this report highlighted the growth of new innovative industries in Denmark; the country's public sector is also increasingly benefiting from IT—as are its citizens as the delivery of social services improves. As one example, the use of electronic procurement for public services by business and individuals was mandated by the Danish government in February last year; according to the European Commission, e-procurement is saving Danish businesses €50m (US$63m) and taxpayers as much as €150m (US$188m) per year. The rest of Europe is expected to follow Denmark's lead: EU ministers have decreed that by 2010, at least 50% of public procurement in member countries should be carried out electronically.

Other public-sector IT schemes are being implemented in Denmark with a view towards generating cost efficiencies. These include an IT system that is intended to link up Copenhagen's hospitals in two years' time; the system is expected to bring savings of €25m (US$46m) annually.

Denmark's e-readiness is becoming a self-perpetuating cycle: more opportunities are being created as leading ICT players are attracted to the country's infrastructure and vision, which in turn further strengthens its role as a leader in the field. For instance, Denmark's popular local Internet portal, Jubii, is among the first to collaborate with VoIP juggernaut Skype to develop Internet phone services, along with supplementary services like dating, chat and shopping.

France pushes Europe's answer to Google

The Internet and global networks are generally viewed in a positive light as demolishers of national boundaries to trade and communications. But sometimes they are seen to pose a threat to national culture and values, and not only in societies with authoritarian systems. Google's seemingly endless march through the Internet industry is drawing attention from European governments, not so much for its successful business model as for the influence the US company is exerting over the way their citizens use the medium. France (19th) and Germany (12th) have responded with a plan to create a European search engine, branded "Quaero", to rival Google and other US Internet firms. Initiated and led by the French government, the project would be funded by the French and German authorities as well as by leading technology firms in the two countries.

Policymakers in Paris view the project primarily as a means of retaining France's position as a global ICT leader, but some also hope it will help to stem the spread of American cultural influence through the

Internet. Quaero is intended to differentiate itself from Google and other search engines by providing multimedia search capabilities and making them available on multiple platforms, including PCs, mobile devices and digital TVs. The government has commendably promoted competition and investment in the telecoms industry (including, most recently, plans to tender a municipal fibre-to-the-home network in Paris). But fostering search engines mainly for their use as a cultural counterweight goes against the grain of its broader aspirations of creating a transparent, innovative—and globally connected—digital economy.

Germany creates a national IT security plan

Like its West European peers, Germany is in the throes of a broadband connectivity boom. Broadband subscriptions increased in 2005 by an estimated 43% from the level of the previous year, according to Pyramid Research. The vast majority of these are digital subscriber line (DSL) connections provided to homes and businesses (as well as alternative operators for re-sale) by Germany's dominant network operator, Deutsche Telekom. The appetite for bandwidth is prompting the incumbent carrier also to invest US$3.75bn in a fibre-to-the-curb project that will provide 50-megabit-per-second access to homes in more than 50 cities. At the same time, competition to the German incumbent remains extremely limited as few other competitors enjoy last-mile access; thus the competitive impetus to the development of broadband services is weak.

The growth in broadband penetration has made German consumers and enterprises more reliant on Internet transactions, but—as with any highly networked economy—it has also made them more vulnerable to Internet security threats. Germany's Federal Office for Security in Information Technology estimates that every tenth e-mail is infected with viruses. In a unique and proactive step, the agency has launched a "National Plan for Information Infrastructure Protection", which provides for the creation of a computer emergency response centre to deal with Internet security threats, and also sets standards and guidelines for both the public and private sector to counter system attacks. This is the first such plan designed in Europe, and it can be expected to serve as a test bed for other European governments' efforts to implement national information security policies.

Central and eastern Europe: Overview of the region

Central and eastern Europe remains a region of stark digital contrasts between a fast-developing upper tier, led by the newest EU members, and a severely lagging lower tier, populated by countries in the Commonwealth of Independent States (CIS). The digital divide between the two groups is widening: 41 places separate top-ranked Estonia (27th) from the poorest performer in the regional—and global—rankings, Azerbaijan (68th), and the difference between their scores is growing. A sort of intra-region digital competition is also emerging, as central European countries like the Czech Republic and Hungary lose some edge as outsourcing locations for software development, call centres and technology-based contract manufacturing to neighbours further east—notably Bulgaria and Romania, where developers and other skilled staff are still readily available at wages well below EU levels.

Overall, the region remains well down the e-readiness scale from the rest of the EU, North America and the developed markets of Asia-Pacific. Telephone connectivity no longer represents a barrier to e-readiness for most countries, with mobile penetration averaging close to 70% throughout the region and exceeding 100% in several markets. But relatively poor fixed infrastructure, low Internet penetration and the slow uptake of broadband—not to mention weaknesses in the business and legal environment and spotty ICT policy implementation by governments—continue to hamper digital progress in most of the region's countries. In most countries, for example, governments have failed to promote vibrant competition to the incumbent telcos, which remain sluggish in rolling out broadband networks and services. Nonetheless, there are regional bright spots in this year's e-readiness analysis, including Lithuania (38th), which has jumped two ranks primarily on the strength of strong improvement in all connectivity indicators, and Estonia.

EU membership has clearly paid dividends for the region's most e-ready countries, as has the carrot of membership for those looking to join. For one thing, more stable and transparent business, legal and policy environments encourage greater usage of new technology. This is illustrated in the booming business market for VoIP, which most of the region's governments have treated as a data service and is thus not subject to competitive restrictions on voice telephony provision. According to a study by a research firm, IDC, the number of VoIP minutes quintupled last year compared with 2004, with Poland leading the region in VoIP usage.

Economist Intelligence Unit e-readiness rankings, 2006

Central and eastern Europe

2006 rank in region	2005 rank in region	Country	Overall ranking (of 68)	e-readiness score (of 10)
1	1	Estonia	27	6.71
2	2	Slovenia	28	6.43
3	3	Czech Rep.	32 (tie)	6.14
4	4	Hungary	32 (tie)	6.14
5	5	Poland	34	5.76
6	6	Slovakia	36	5.65
7	8	Lithuania	38	5.45
8	7	Latvia	39 (tie)	5.30
9	9	Bulgaria	44	4.86
10	10	Romania	49 (tie)	4.44
11	12	Russia	52	4.30
12	11	Ukraine	61	3.62
13	13	Kazakhstan	64	3.22
14	14	Azerbaijan	68	2.92

Source: Economist Intelligence Unit, 2006.

Trends and best practices

Bulgaria sparks an outsourcing migration to the east

The outsourcing market, especially for software development and call centres, is migrating from central Europe to eastern Europe, and Bulgaria (44th) is becoming a spotlight, according to a study by a consultancy, AT Kearney. The more established offshore locations such as the Czech Republic, Hungary and Poland have become relatively less attractive as outsourcing centres owing to rising wages (costs in central Europe are converging on EU levels) and the improvement of service quality in South-east Asian markets such as Thailand and the Philippines. Bulgaria's investments in electronics, engineering and computer sciences have paid off: the country ranks fifth globally in sciences and eleventh in mathematics education, according to the World Bank. The result is an abundance of trained IT professionals, many with multilingual capabilities. With these assets, Bulgaria (like Romania) is positioning itself as a "near-shoring" centre for US and European firms looking to shift IT development work to low-cost locations closer to home, and a large number of firms—including SAP, BMW and Siemens (all of Germany), and Boeing and General Motors (US)—are doing just that.

Broadband in Hungary—speeding up

Adoption of high-speed Internet is gaining momentum in Hungary. Asymmetric digital subscriber line (ADSL) connections had risen to nearly 413,000 by the end of 2005, according to the country's national telecoms regulator, a 60% increase from the installed base at the beginning of the year. Pyramid Research expects household penetration of broadband—which, in addition to xDSL, also includes cable modems and broadband wireless subscriptions—to near the 15% mark in Hungary by the end of 2006, one of the highest rates in the region. As broadband adoption gains momentum and mobile-phone subscriptions continue to proliferate (over 90% penetration and rising), Hungarian households are giving up their traditional plain old telephone service (POTS). Mirroring a trend under way in other new EU countries (and indeed throughout the EU), narrowband POTS subscriptions have fallen in every year this decade.

Hungary's dominant telecoms carrier, Matav, has announced plans for further investments in broadband projects. It also helped to build a national high-speed Internet backbone for the Hungarian National Research Education Network. The network supports seven universities and several other research and educational institutions in the country, connecting them with one another as well as with the EU's pan-European research network. The country is the first in the region to have a nationwide network with a capacity of 10 gigabits per second. The move is in line with the EU's eEurope targets, demonstrating the virtuous influence that the EU accession is having on new entrants' e-readiness.

The Americas: Overview of the region

E-readiness marches on in North America. The United States retains the number two spot in the global rankings it gained last year, and Canada jumps three spots to 9th place, penetrating our global top ten for the first time. Online commerce provides a salutary example of North American progress, as well as of the interaction of several aspects of e-readiness to generate positive business (and economic) outcomes. Online retail sales reached US$81bn in the US in 2005, and are expected to grow to US$95bn this year, according to an analyst firm, Jupiter Research. Canadian consumers spent US$4.6bn online, according to another research firm, eMarketer, and annual growth averaging 20% is expected over the next four years.

In Canada, high broadband penetration—currently over 25%, compared with about 15% in the US—has helped to fuel this growth. But close attention to Internet security is also playing a role: a survey conducted by the US-based Business Software Alliance suggests that consumer confidence in protective security measures has helped to boost the growth of online shopping.

In Latin America, consumer and business Internet usage, not to mention online shopping, remains much lower. A key factor has been slow access growth: Internet user penetration is below 15% in the region, according to Pyramid Research, compared with 65% in North America. Chile (31st) is the exception, where broadband and mobile penetration (5% and 75%, respectively) are by far the highest in the region. (Chile also owes it regional e-readiness leadership to a relatively stable business environment.) Elsewhere, broadband adoption increased only slightly in 2005, and there are few public and private efforts under way to make Internet access more affordable. Latin American governments are taking a more pro-active approach in promoting the importance of information technology and investing in infrastructure programs, for all the right reasons. Unlike other global best practices, however, they have neither the size and scale of similar efforts in Asia nor the level of transnational co-ordination and co-operation that is seen across Europe.

Economist Intelligence Unit e-readiness rankings, 2006

The Americas

2006 rank in region	2005 rank in region	Country	Overall ranking (of 68)	e-readiness score (of 10)
North America				
1	1	United States	2	8.88
2	2	Canada	9	8.37
Latin America				
1	1	Chile	31	6.19
2	2	Mexico	39 (tie)	5.30
3	3	Brazil	41	5.29
4	4	Argentina	42	5.27
5	5	Venezuela	48	4.47
6	7	Peru	49 (tie)	4.44
7	6	Colombia	51	4.41
8	8	Ecuador	58	3.88
Other				
–	–	Bermuda*	20	7.81
–	–	Jamaica	43	5.03

* New to the rankings in 2006.
Source: Economist Intelligence Unit, 2006.

Trends and best practices

Moving away from an open telecoms market in the US?

Telecoms industry competition has become much fiercer in the US, but this is not to the liking of all stakeholders. For one thing, merger and acquisition (M&A) activity has been fast and furious over the past two years, as fixed and wireless players seek economies of scale in what had been a highly fragmented market. Another factor has been the mounting challenge to telcos' traditional voice revenue streams from disruptive upstarts like VoIP providers Vonage and Skype. The latter illustrate the never-ending trend in the US of companies—some established, some new—pioneering new business models and service offerings. These often move in different directions, or at different speeds, than governments and their policy formulation efforts, as evidenced by the efforts of the US Department of Justice to gain access to the customer search records of online firms.

While the government strains to mesh policy with the market reality of the new economy, the more established wing of the digital economy—telecoms carriers—seeks a regulatory environment that favours them. Partly for the reasons cited above, carriers find their revenue streams increasingly under threat, and many are developing premium services, such as video streaming, to counter the trend. The remaining big telcos have been lobbying Congress for a change to the 1996 Telecommunications Act that would allow for tiered Internet service pricing. Should the change go through, facilities-based carriers (those with ownership of networks) could charge other operators who use their infrastructure a higher price for new services than they do their own direct customers. Given the frequent US role as a trend-setter in telecoms industry development, the decision whether to re-institutionalise favoured status to facilities-based carriers is likely to have an impact beyond US shores.

Open source helps Latin America to narrow the digital divide

Open-source software is gaining enormous support from developing countries, and governments in Latin America provide many a case in point. The government of Brazil (41st) has announced its plans to promote open-source software for use in the public sector, educational institutions and homes across the country. It claims savings could add up to US$120m a year by switching from Windows to open source. Similar moves have been made in Peru (49th), which last year introduced a bill mandating the use of open-source software by government agencies, and in Venezuela (48th), where all public administration is to be switched to open source by the end of 2006.

Open source is seen as a digital "win-win" in the region, in that it would provide support for the local software industry, reduce IT costs and facilitate increased adoption. Brazil is proposing to organise an international group called "Global Organisation for Free Software" with the purpose of encouraging developing nations to use open-source software. And parts of the private sector are following the Brazilian government's lead. Some of the country's largest firms, including Casas Bahia and Tele Norte Leste, are using Linux in cash registers and call centres. Banco do Brasil, Latin America's largest bank, expects to switch all of its 200,000 desktop computers to open source within five years.

Asia-Pacific: Overview of the region

There is an overall downward movement of Asia-Pacific countries in this year's rankings, with the exception of Japan and South Korea, which remain unchanged (at 21st and 18th, respectively), and Australia (8th) and New Zealand (14th), both of which move up a couple of places. This owes less to a lack of digital progress in Asia than to the comparatively larger growth steps taken in other regions. The ranking stasis of Asia's technology leaders, for example, is a reflection of their inability to remain global pace-setters, not by any means to a lack of infrastructure or applications development. In other words, markets like Japan, South Korea and Taiwan are victims of their own e-readiness, and Europe and North America are catching up to North Asia's broadband density. The latter regions are unlikely to start to register substantially more e-readiness progress until they start deploying next-generation technologies like WiMAX and IPTV widely.

The adoption in Asia of WiMAX—a higher speed, higher coverage successor to WiFi—has been slow, held back by spectrum regulation and competition from other mobile technologies, not to mention the success of DSL. Industry players nonetheless remain optimistic that adoption will pick up speed soon. A research firm, In-Stat, predicts that WiMAX subscribers in Asia-Pacific will more than quadruple from 80,000 in 2005 to over 3.8m by 2009. South Korea Telecom is looking to provide mobile WiMAX service by the end of the year. Similarly, IPTV take-up has been sluggish outside of Hong Kong, mainly owing to competition from players in different industries. South Korean carriers are also leading in this arena, with several announcing IPTV service launches to take place this year. Hong Kong telecoms carrier, PCCW, is currently the Asian leader in IPTV with over 500,000 subscribers at the end of 2005.

For the less developed countries in the region, namely Thailand (47th), India (53rd), Philippines (56th), China (57th), Sri Lanka (59th), Indonesia (62nd), Vietnam (66th), and Pakistan (67th), technology infrastructure remains a major hurdle on their road to e-readiness. Ironically, many of these markets boast some of the largest and fastest-growing connectivity markets—Pakistan and Bangladesh each add more than 1m new mobile accounts monthly, and India twice that; Vietnam installed over 100,000 DSL lines last year. Yet developing Asia's massive population of around 3bn people will make these achievements seem drops in the digital bucket for some time.

Economist Intelligence Unit e-readiness rankings, 2006

Asia-Pacific

2006 rank in region	2005 rank in region	Country	Overall ranking (of 68)	e-readiness score (of 10)
1	2	Australia	8	8.50
2	1	Hong Kong	10	8.36
3	3	Singapore	13	8.24
4	4	N. Zealand	14 (tie)	8.19
5	5	South Korea	18	7.90
6	6	Japan	21	7.77
7	7	Taiwan	23	7.51
8	8	Malaysia	37	5.60
9	9	Thailand	47	4.63
10	10	India	53	4.25
11	11	Philippines	56	4.04
12	12	China	57	4.02
13	13	Sri Lanka	59	3.75
14	14	Indonesia	62	3.39
15	15	Vietnam	66	3.12
16	16	Pakistan	67	3.03

Source: Economist Intelligence Unit, 2006.

Another e-readiness hurdle in Asia's developing markets is the lack of a sound legal and policy environment that supports effective competition, which is critical for making telecoms services more affordable as well as for driving the growth of new and innovative products. The situation is illustrated in India, where new telecoms carriers like Bharti Tele-Ventures have had to shelve rollout of third-generation (3G) mobile-phone networks while the government mulls national spectrum policy and pricing. (The government finally committed to spectrum allocation in the first quarter of 2006.) Vietnam is also struggling in a non-competitive environment largely influenced by its own state-regulated telecoms industry.

Trends and best practices

South Korean success with ICT dirigisme

The South Korean government continues to do its part, through substantial and targeted investment programmes, to ensure that the country's ICT industry remains a pillar of the economy. The Ministry of Information and Communication has announced plans to inject US$1bn in 2006, which is a 10% increase on the previous year. Most of the expenditure will go towards developing high-speed wireless Internet and digital multimedia broadcasting services, which the government sees as key IT industry drivers. The government's aim is to create a ubiquitous communication society where high-speed wireless Internet is readily available throughout the country. Thus, its strategy focuses, for example, on the development of radio frequency identification (RFID)-based platforms. If the progress of other such programmes is any indication, the success of this one is likely. ICT exports were valued at US$85bn in 2005 (about 15% of GDP), of which US$500m were in the form of online game sales, according to the government's Culture and Content Agency. Game sales account for 40% of the country's exports of entertainment and cultural products; in fact, South Korea is now recognised as a global leader in the online games industry.

India's heated growth attracts investments from home and abroad

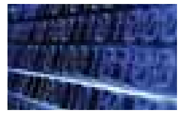
India's IT and business process outsourcing industries are among the world's most analysed in recent years. Now, the potential of its local telecoms market is beginning to attract attention. Nearly 50m fixed subscribers and 75m mobile users have created opportunity, and with a population of over 1bn there is enormous potential for growth. The government seems to agree, and it sees the virtue of investment in developing services: a telecoms consultancy, Gartner, estimates that over US$16bn will be invested in 2006, a year-on-year increase of 27%, and it projects this figure to reach US$32bn by 2009. The Department of Telecommunications has set a target of 250m fixed and mobile users by 2007.

Such growth potential, combined with its competitiveness in low-cost manufacturing, is attracting foreign investment. If planned handset ventures by such firms as Nokia (Finland) and Elcoteq (Estonia) pan out, foreign direct investment in telecoms equipment manufacturing should reach US$1bn in 2006, according to India's communications minister.

Vietnam's telecoms market: a monopoly dressed in competitive clothing

Vietnam is another thriving IT services and telecoms market, but in many ways its e-readiness progress is deceptive. On the surface, the country contains characteristics of very compelling Asian ICT development models. For example, a plethora of carriers exist in broadband access, mobile services and managed enterprise services. Price-based competition has created tremendous momentum in the growth of voice and data connectivity. In addition, there are pockets of higher technology production industries—key among them optical disc manufacturing and business software—that are natural outcroppings of an emerging ICT industry. In this regard, Vietnam has some of the characteristics of India's liberalised telecoms market and booming IT services sector.

And yet, it would be a stretch to term Vietnam's telecoms market as either liberalised or competitive. The incumbent carrier—Vietnam National Post and Telematics (VNPT)—is under the direct control of the regulatory authority and policymaker, the Ministry of Post and Telematics. Moreover, many competitors in the field are actually VNPT subsidiaries, and true (although also state-owned) competitors often see their service licence applications drag if they threaten to compete directly with a VNPT company. In this sense, Vietnam resembles China more than India. In the short term, this is not necessarily bad news for the development of the country's telecoms infrastructure, nor for its e-readiness prospects.



Middle East and Africa: Overview of the region

The Middle East has made tremendous strides in improving Internet connectivity in recent years. Internet usage in the region grew by more than 300% between 2000 and 2005, whereas in Saudi Arabia (46th) the figure was 1,000%, according to Internet World Stats. Saudi Arabia is also in the process of building the Middle East's largest IP network for Internet transport and wireless communications.

The usual suspects—government prodding, competition and healthy economic growth—have also contributed to a booming Middle East mobile market. The region added over 20m new subscribers in 2005, with some markets, like Algeria (63rd), recording triple- digit growth. Jordan (54th), one of this year's new additions to the rankings, is growing as quickly, not in small part because it is rated the Middle East's most competitive mobile market, according to Arab Advisors Group. The mobile industry's development is a bellwether for the information economy overall, and Middle East countries have made good progress in terms of liberalisation and privatisation. Some markets are still struggling to grow, owing to high tariffs and steep entry barriers to foreign investment. But even the holdouts are beginning to come around: in November 2005 state-owned IranCell sold a 49% stake in its national operations to the South African mobile giant, MTN.

Trends and best practices

In South Africa, ineffective liberalisation equals high broadband prices

South Africa (35th) has long had a favourable environment for digital business, and it remains the most e-ready of African countries. An interdependent web of macroeconomic factors—including surging GDP growth and mild inflation—is increasing the purchasing power of South Africans and their demand for new digital services and products. According to a study by a research firm, BMI-TechKnowledge, close to 85% of high-income households have DVD players, and 69% have a pay-TV subscription. This points to a potential market for "triple play" services, bundling in broadcast or multimedia content services with high-speed Internet access.

Yet tech-hungry South Africans appear to have little appetite for the Internet: it accounts for only 12% of the average high-income household's telecoms spending, according to a survey conducted by MyADSL, another South African research firm. Not surprisingly, the cost of Internet access has been the main adoption hurdle: despite a generally Internet-literate government with pro-ICT policies, an ineffective telecoms liberalisation effort means that South Africa

Economist Intelligence Unit e-readiness rankings, 2006

Middle East and Africa

2006 rank in region	2005 rank in region	Country	Overall ranking (of 68)	e-readiness score (of 10)
1	1	Israel	22	7.59
2	–	UAE*	30	6.32
3	2	S. Africa	35	5.74
4	3	Turkey	45	4.77
5	4	S. Arabia	46	4.67
6	–	Jordan*	54	4.22
7	5	Egypt	55	4.14
8	6	Nigeria	60	3.69
9	7	Algeria	63	3.32
10	8	Iran	65	3.15

* New to the rankings in 2006.
Source: Economist Intelligence Unit, 2006.

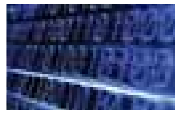
is one of the few countries left in the world with an effective fixed-line monopoly (practised by the incumbent operator, Telkom), and Internet prices remain high. There may be at least some movement in the right direction soon: in 2005 the Independent Communications Authority of South Africa released draft regulations on ADSL with the goal of making broadband more affordable to the public.

Algeria realises the fruits of competition

Although mired near the bottom of our list of 68 countries, Algeria has registered the greatest improvement in e-readiness scores among all countries in the Middle East and Africa, and it joins Lithuania and Estonia among the most improved countries globally. Given that it still occupies the 63rd place it held in 2005 even after this year's addition of three new countries, Algeria has effectively gained three places in the 2006 rankings.

The source of Algeria's improvement lies mainly in the realm of government policy implementation, particularly the injection of competition into the telecoms market in the past three years. The results are now showing through in connectivity. Previously a monopoly of the incumbent, Algeria Telecom (AT), the mobile market now houses three highly competitive operators, two of which are foreign-owned—Orascom (Egypt) and Wataniya (Kuwait). From a little more than 1% in 2002 when a second operator launched its service, mobile penetration now exceeds 40% of the population and, according to Pyramid Research, is likely to cross the 60% threshold by the close of 2006.

The government is extending competition to other parts of the telecoms market as well. It has awarded a licence to Orascom and Telecom Egypt to build and operate a fixed-line network that will compete with AT for high-speed data and other specialised services, in addition to meeting unfulfilled demand for basic telephony services. It is likely also to authorise several Internet service providers (ISPs) to provide VoIP services, to compete with the (still expensive) international calling services of AT and the mobile operators. There is nothing like a little competition to shake up a market.



Conclusion: E-readiness means not going it alone

The stability of this year's rankings and the steady improvement of most countries' e-readiness scores over the past several years underline the widespread acceptance by governments of the promise of the networked economy. With very few exceptions, policymakers and other stakeholders around the world recognise the positive correlation between ICT and growth, and nearly all are taking some action to improve their county's ICT environment. To one degree or another, their efforts are bearing fruit.

It is premature to speak of convergence of the world's economies around certain levels of e-readiness, but such convergence is increasingly evident among our top tier of about 25 countries. The developed world has made significant progress, for example, in improving the availability and quality of broadband Internet, which we hold to be a vital component of e-readiness. The countries of North Asia have led the way, but Australia, Canada, the US and Western Europe have over the last two years made considerable leaps in broadband penetration and have effectively "caught up" with South Korea and Japan.

This advance of broadband penetration goes a long way towards explaining the steady rise of our e-readiness leaders, but as a measure of broader development it is obviously limited. Mature economies with high disposable income levels to pay for broadband can get saturated quickly—and thus appear stagnant once "ubiquitous" penetration is achieved. Some developing countries with huge populations may never reach saturation. Thus, e-leaders and laggards can potentially not have the full weight of their achievements assessed.

As we have demonstrated, it is not only physical (or wireless) connections to voice and data networks that can provide access to the information economy. Anything that helps lower the costs of accessing those networks can be of great benefit. Thus, when open-source software brings the cost of computerisation down, and VoIP service providers open up new international calling markets with aggressive pricing, an economy has new levers to improve its e-readiness.

E-readiness, moreover, is clearly more than the sum of a country's domestic parts: it is also affected by how well that country can experiment with and exploit new technologies, markets and processes from other markets. IT-enabled outsourcing is perhaps the most visible example of the interconnected nature of the global ICT economy, and its ability to enable less e-ready markets to extract value from the e-readiness of others.

As more and more countries put the building blocks of a digital economy in place, and as they increasingly derive economic benefit from global ICT trends, the yardstick by which e-readiness is measured will change. Our rankings in future years are very likely to reflect this shift.

Appendix 1: Methodology and category definitions

The Economist Intelligence Unit's e-readiness ranking methodology is both multi-faceted and constantly updated, reflecting both the variety of social, economic and technological factors that influence e-commerce—and the rapid pace with which they can change. Again in 2006, the ranking model consists of nearly 100 separate quantitative and qualitative criteria, which are scored by Economist Intelligence Unit country analysts and organised into six primary categories. These are, in turn, weighted according to their assumed importance as influencing factors. Changes—the inclusion of new ranking criteria, retiring of less relevant items and/or the re-weighting of criteria—are carried out by an Economist Intelligence Unit analyst panel led by the director of global technology research.

Major data sources include the Economist Intelligence Unit, Pyramid Research, the World Bank and The World Information Technology and Services Alliance (WITSA), among others. These assessments are, in turn, reviewed by our senior economists. The six categories (and their weight in the model) and criteria are described below.

1. Connectivity and technology infrastructure

Weight in overall score: 25%

Category description: Connectivity measures the access that individuals and businesses have to 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. In recent years we have increased the weighting of broadband penetration, and added measures of wireless "hotspot" penetration and Internet affordability, the latter measured by the percentage of income per head that a month's worth of Internet access represents.

Category criteria: Narrowband penetration; broadband penetration; mobile-phone penetration; Internet penetration; PC penetration; WiFi hotspot penetration; Internet affordability; 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. 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 government investment in ICT?

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

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—receive 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 environment

Weight in overall score: 15%

Category description: Literacy and basic education are preconditions to being able to utilise Internet services, but this category also considers a population's "e-literacy"—its experience using the Internet and its receptivity to it—and the technical skills of the workforce. E-business, at some level, usually requires some amount of risk-taking, and the fruits of that risk-taking often culminate in the creation of intellectual property. In fact, policymakers often use e-business development as a catalyst for innovation. Thus, the rankings this year attempt to measure each country's ability to foster new products and industries, by assessing entrepreneurship and innovation levels, the latter measured by the number of patents registered. The two have been included as separate criteria for ratings in the category this year.

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

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.

Appendix 2: Category scores

Economist Intelligence Unit e-readiness rankings, 2006

Category scores

	Overall score	Connectivity	Business enviroment	Consumer and business adoption	Legal and policy environment	Social and cultural environment	Supporting e-services
Category weight		*0.25*	*0.20*	*0.20*	*0.15*	*0.15*	*0.05*
Denmark	9.00	8.70	8.77	9.45	8.70	9.40	9.25
US	8.88	7.85	8.59	10.00	8.77	9.20	10.00
Switzerland	8.81	8.50	8.56	9.45	8.24	9.20	9.25
Sweden	8.74	8.00	8.36	9.55	8.58	9.40	9.25
UK	8.64	7.90	8.57	10.00	8.42	8.20	9.25
Netherlands	8.60	8.20	8.57	9.05	8.46	8.60	9.25
Finland	8.55	7.80	8.59	9.25	8.52	8.60	9.25
Australia	8.50	7.80	8.27	8.65	9.05	9.00	9.25
Canada	8.37	7.75	8.75	8.65	8.70	7.80	9.50
Hong Kong	8.36	8.10	8.58	9.20	9.23	6.40	8.75
Norway	8.35	7.70	8.23	9.40	8.46	7.80	9.25
Germany	8.34	7.20	8.32	9.30	8.20	8.80	9.25
Singapore	8.24	7.80	8.58	9.05	8.84	6.60	9.00
N. Zealand	8.19	7.45	8.11	8.20	8.83	8.60	9.00
Austria	8.19	7.40	8.22	8.80	8.48	8.00	9.25
Ireland	8.09	6.60	8.46	9.00	8.56	8.00	9.25
Belgium	7.99	7.25	8.33	8.40	8.18	7.60	9.25
South Korea	7.90	7.40	7.32	8.20	8.19	8.60	8.50
France	7.86	6.70	8.28	8.45	8.24	7.80	8.75
Bermuda	7.81	7.70	8.10	7.75	8.85	6.80	7.25
Japan	7.77	7.10	7.43	8.60	7.87	8.00	8.25
Israel	7.59	7.35	7.73	7.45	7.18	8.00	8.75
Taiwan	7.51	7.70	8.10	7.10	8.11	6.20	8.00
Spain	7.34	6.70	7.85	7.05	7.98	7.00	8.75
Italy	7.14	6.50	7.31	6.85	7.98	7.00	8.75
Portugal	7.07	6.45	7.51	6.90	8.14	6.20	8.50
Estonia	6.71	6.60	7.81	5.60	6.96	6.40	7.50
Slovenia	6.43	5.90	7.45	5.45	6.50	6.80	7.50
Greece	6.42	4.90	6.85	6.25	7.60	6.80	8.25
UAE	6.32	5.00	7.68	5.85	6.97	6.20	7.75
Chile	6.19	4.15	7.94	5.95	7.66	6.00	6.50
Czech Rep.	6.14	4.90	7.39	6.00	6.84	5.60	7.50
Hungary	6.14	4.80	7.34	5.85	6.86	6.00	7.50
Poland	5.76	4.30	7.28	5.05	6.46	5.80	7.50

	Overall score	Connectivity	Business enviroment	Consumer and business adoption	Legal and policy environment	Social and cultural environment	Supporting e-services
Category weight		*0.25*	*0.20*	*0.20*	*0.15*	*0.15*	*0.05*
S. Africa	5.74	2.70	6.85	6.50	7.48	6.00	7.50
Slovakia	5.65	4.05	7.35	4.50	6.38	6.40	7.00
Malaysia	5.60	4.45	7.21	5.85	5.95	4.80	5.25
Lithuania	5.45	4.65	7.28	3.85	5.99	5.40	7.00
Latvia	5.30	3.95	7.21	3.85	6.09	5.60	7.00
Mexico	5.30	3.35	7.05	4.50	6.93	5.40	6.00
Brazil	5.29	3.15	6.71	5.40	6.87	5.00	6.00
Argentina	5.27	3.70	6.21	5.35	6.38	5.20	6.00
Jamaica	5.03	3.75	6.00	4.80	6.60	4.80	4.50
Bulgaria	4.86	3.85	6.72	3.30	5.71	5.00	5.75
Turkey	4.77	3.60	6.68	4.35	4.97	4.40	5.25
S. Arabia	4.67	3.25	6.43	4.80	4.89	4.20	5.00
Thailand	4.63	3.25	7.01	3.45	5.81	4.20	4.50
Venezuela	4.47	3.10	4.96	4.40	5.83	4.60	5.25
Peru	4.44	2.40	6.21	3.45	6.51	4.40	5.50
Romania	4.44	2.90	6.36	2.90	5.68	4.80	5.75
Colombia	4.41	2.55	6.28	3.70	6.12	4.00	5.25
Russia	4.30	3.45	6.16	2.60	4.01	5.40	5.50
India	4.25	1.55	6.18	4.25	5.09	4.60	6.50
Jordan	4.22	2.45	5.68	3.60	5.03	5.00	5.00
Egypt	4.14	2.65	5.84	3.65	4.94	4.20	4.25
Philippines	4.04	2.15	6.46	2.90	4.60	4.80	4.50
China	4.02	2.60	6.37	2.95	4.04	4.60	4.25
Ecuador	3.88	2.05	5.42	3.00	5.55	4.20	4.50
Sri Lanka	3.75	1.55	6.13	2.95	4.96	4.20	3.50
Nigeria	3.69	1.15	4.78	3.65	4.94	5.00	4.50
Ukraine	3.62	2.50	5.46	1.85	3.85	4.80	4.75
Indonesia	3.39	1.70	6.41	2.80	3.24	3.00	3.75
Algeria	3.32	2.35	5.36	2.35	3.42	3.60	2.75
Kazakhstan	3.22	2.10	5.37	1.95	3.42	3.60	3.50
Iran	3.15	2.70	4.66	2.05	2.49	4.00	3.25
Vietnam	3.12	1.60	5.68	2.00	3.56	3.40	2.75
Pakistan	3.03	1.50	5.12	1.95	3.90	3.20	3.50
Azerbaijan	2.92	1.85	5.54	1.80	2.68	2.80	3.25

LONDON
26 Red Lion Square
London
WC1R 4HQ
United Kingdom
Tel: (44.20) 7576 8000
Fax: (44.20) 7576 8476
E-mail: london@eiu.com

NEW YORK
111 West 57th Street
New York
NY 10019
United States
Tel: (1.212) 554 0600
Fax: (1.212) 586 1181/2
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