



## Global information technology: The rankings

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**Denmark has topped the rankings for the first time in the annual Global Information Technology Report, followed by Sweden, Singapore and Finland. According to the report, Denmark's outstanding levels of networked readiness are closely tied to the country's excellent regulatory environment, coupled with clear government leadership and vision in leveraging information and communication technology (ICT).**

The report, co-produced by the World Economic Forum and INSEAD Professor in Business and Technology Soumitra Dutta, assesses the impact of ICT on the development process and competitiveness of countries. Its Networked Readiness Index (NRI) measures the propensity of nations to leverage opportunities offered by ICT for development and increased competitiveness.

### Investing in education

Dutta says a number of fundamental factors have resulted in Denmark and several other Nordic countries dominating the rankings. "All of these countries have invested very heavily in education. If you look at the quality of education, Denmark ranks 5th in the world. If you look at internet access in schools, Denmark ranks 6th. So very strong investment in education, a highly educated workforce is very important and if you look, for example in Denmark, the extent of staff training, it ranks 2nd in the world. So there's a lot of investment in staff development and education."

"At the same time these countries have very stable, very open economies and they've invested a lot in making economies very easy for businesses. So if

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you look at the time required to start a business, Denmark ranks 3rd in the world and if you look at the number of procedures required to start a business, Denmark ranks 4th. The figures are quite comparable for the Scandinavian countries but you get a sense of how these countries have made life easy for business. Now all this has been coupled with a strong focus from the government in terms of pushing technology as a key enabler of the country's growth and development. So if you look, for example, at the e-government readiness index of Denmark, it's once again ranked 2nd in the world. So a very strong government push, a very educated population, good open regulatory environment – all these different factors make for a very good standing for these countries.

### Networked Readiness Index 2006–2007 rankings

Rank	Country/ Economy	Score
1	Denmark	5.71
2	Sweden	5.66
3	Singapore	5.60
4	Finland	5.59
5	Switzerland	5.58
6	Netherlands	5.54
7	United States	5.54
8	Iceland	5.50
9	United Kingdom	5.45
10	Norway	5.42
11	Canada	5.35
12	Hong Kong	5.35
13	Taiwan	5.28
14	Japan	5.27
15	Australia	5.24
16	Germany	5.22
17	Austria	5.17
18	Israel	5.14
19	South Korea	5.14
20	Estonia	5.02

While Denmark rose to 1st place from 3rd in the Global ICT rankings, the US fell from the top position to 7th place. The report attributed this mainly to the relative deterioration of the political and regulatory environment there, even though the US maintained its leading role in innovation.

Switzerland and the Netherlands made significant gains in the rankings, but one country which stood out in the report was Estonia for the ‘impressive progress’ it had made within the past decade in terms of networked readiness and general competitiveness.

### Technology as key enabler



“Estonia didn’t exist as a free country until about 20 years ago,” when it regained its independence from Moscow, Dutta says. “The government of Estonia, ex-Prime Minister Mart Laar and his key advisers, saw technology as a key enabler for not just promoting the development of the country but also for promoting an open and informed society with a transparent, open government ... (These) were seen as very important requirements for the country coming out of the ex-Soviet bloc.”

Laar was just 32 years old when he became the prime minister of Estonia. “So a very young prime minister, supported and surrounded by very young, key advisers and they saw technology as a key

enabler for the future development of the country ... They wanted to make Estonia a modern, prosperous, open society and saw technology as a key enabler of that.”



Estonia ranked 20th in the Global Information Technology Report, just ahead of Ireland (21st) and France (23rd). “These countries performed well in the technology rankings, of course not in the top twenty, but the reason for the less-than-high performance you’d expect from them is rooted in many of the legacy environmental and regulatory aspects,” such as France’s rigid labour laws which often inhibit the application of technology in firms. “So companies hesitate to apply technology,” Dutta says, “or perhaps apply technology but don’t get the benefits of it because they’re unable to put in place accompanying labour flexibility.”

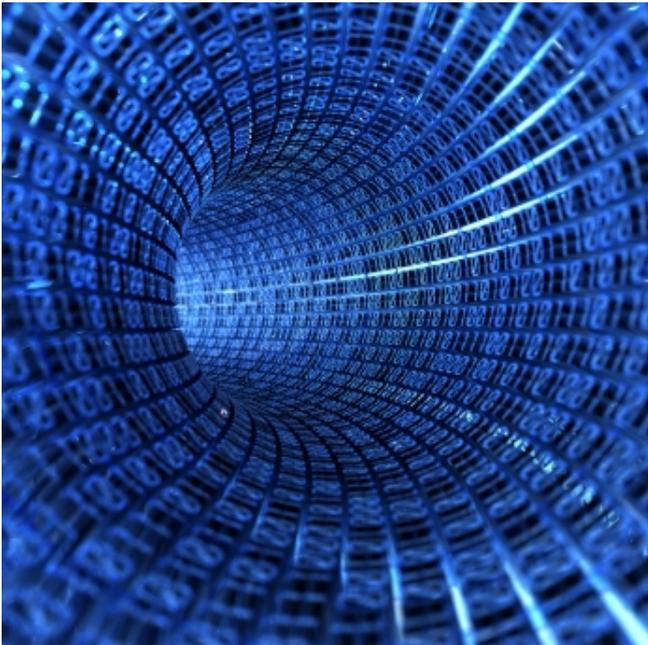
Asian countries continued to do well in the rankings, with Singapore in 3rd place overall. However, the Asian giants both moved down in the rankings, with India slipping four places to 44th and China down nine places at 59th. “Clearly what’s happening, and what’s a problem in China and India, is the huge size of the population. So when you look at things on a per capita basis, in many cases the changes are often slower to happen and the poor infrastructure and the regulatory burden that these countries carry often is tremendous. So even today, for example in China, a lot of the barriers are extremely high.” China ranks 80th in terms of property rights, he says, and 95th for the number of procedures needed to start a business. He adds the two countries are “certainly doing very well in many ways in the economy, but in terms of overall progress, perhaps they’re not progressing as fast in some areas, as some other countries are.”

### Digital divide 'improving'

Many commentators have pointed to the growing digital divide between the developed and developing world. Dutta says the data they’ve

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analysed show that the digital divide is 'getting better', with many African and Asian countries making investing heavily in technology.



“If you look at the penetration of technology in many countries it’s improving dramatically ... The digital divide is less in the technology per se and much more in the environmental and regulatory factors. So a lot of the countries in Africa, Asia and Latin America invest in technology but not necessarily in the regulatory environment and the supporting political and bureaucratic context that supports technology usage.”

And his advice to governments looking to make rapid progress? Leadership from the government is important, Dutta says, and top officials need to understand that technology represents a broad development tool and that this has to be reflected in national policy.

“Many countries like, for example, Singapore, Estonia and Finland have very sophisticated national policies for articulating how technology should be used ... and then of course what you need is a very capable, educated population, a workforce and society in general,” which can access technology and use it effectively. Plus, he says, countries also need effective public/private partnerships “because the government cannot do it alone, neither can the private sector – you need a good combination of public/private partnership to do it.”

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