

**Connectivity Scorecard 2011**

*This document is a summary of a report from Nokia Siemens Networks dated 5 May 2011. It was released by InterInnov on 11 May 2011.*

**The Connectivity Scorecard Concept**

**The Concept**

It is widely accepted that a significant amount of economic growth and productivity growth in the developed nations is driven by information and communications technology (ICT). Connectivity is the key enabler of the flow of information that defines modern economies. The term “connectivity” refers to the totality of interaction between a nation’s telecommunications infrastructure, hardware, software, networks, and their users.

The Connectivity Scorecard is an attempt to rank countries according to a measure of “useful connectivity” which refers to the ability of connectivity to contribute to economic growth, especially through improvements in productivity that are widely held to be the key to sustained economic prosperity.

**How “useful” is connectivity?**

ICT’s prominent role in the U.S. productivity revival of the 1990s and 2000s was driven by an expansion in the ICT sector itself, but equally crucially by productivity gains in the “ICT-using sectors” (financial services for instance).

Within Europe itself, some countries such as the Northern European countries and the United Kingdom appeared to be both investing substantially in ICT and realizing significant productivity gains.

There is a great deal of evidence on the impact of ICT, at both the social level and at the economic level, in developing countries. Mobile telephone networks have been revolutionary in terms of making up for the deficiencies in physical transportation and fixed-line communications infrastructure. The social aspect of mobile telephony and Internet diffusion must also be taken into account. In many countries, major social and political changes have been accelerated by the decentralized flow of information and it made it much easier for citizens to communicate directly among themselves, regardless of geographic distance.

**Connectivity Scorecard 2011: results**

**Innovation-driven economies**

Rank	Country	Final Score
1	Sweden	7.84
2	US	7.84
3	Denmark	7.84
4	Netherlands	7.45
5	Norway	7.45
6	UK	7.45
7	Australia	6.93
8	Canada	6.93

**Efficiency-driven economies**

Rank	Country	Final Score
1	Malaysia	6.61
2	Chile	6.21
3	Russia	5.68
4	Turkey	5.61
5	Argentina	5.46
6	Brazil	5.14
7	Mexico	4.87
8	Ukraine	4.81



9	Finland	6.93
10	Singapore	6.40
11	Belgium	6.31
12	Austria	6.27
13	Germany	6.27
14	Ireland	6.08
15	France	6.06
16	Japan	5.89
17	New Zealand	5.84
18	Korea	5.80
19	Spain	5.09
20	Czech Republic	4.93
21	Portugal	4.80
22	Italy	4.79
23	Hungary	4.50
24	Poland	4.26
25	Greece	4.22

9	South Africa	4.68
10	Colombia	4.06
11	Thailand	2.68
12	Tunisia	2.79
13	Vietnam	2.73
14	China	2.72
15	Iran	2.41
16	Philippines	2.15
17	Syria	2.11
18	Indonesia	2.01
19	Sri Lanka	2.01
20	Egypt	1.89
21	India	1.25
22	Pakistan	1.14
23	Nigeria	1.09
24	Kenya	0.95
25	Bangladesh	0.90

## Innovation-driven economies

- Sweden and U.S. dominate rankings: The closeness of the U.S. and Swedish scores reflects all-round strengths in ICT, although the two countries are not the leaders in some categories (e.g. consumer infrastructure);
- Asian countries: Hong Kong dropped out of the list this of top 25 this year while it was 12<sup>th</sup> last year. Korea and Japan both fell in the rankings (respectively 16<sup>th</sup> and 18<sup>th</sup>). Japan and Korea are not necessarily leaders in all forms of ICT adoption and usage;
- France: This country made real progress by being ahead of countries historically considered as leaders in ICT. It is ranked 15<sup>th</sup>;
- Overall stability: there is a great deal of stability in the Scorecard. The same countries as in previous years tend to form the top two or three clusters. Beyond these top three clusters, there are nine other countries that show some strength either in specific areas of the Scorecard (e.g., Korea and Japan) or which are generally reasonably good performers without being particularly outstanding (France, Germany, Austria and Belgium). The countries of Southern and Eastern Europe remain well differentiated from the rest of the pack.

## Efficiency-driven economies

- Malaysia tops, South Africa slips: Malaysia continued to lead the group of Resource and Efficiency economies. South Africa fell back several places;
- High degree of correlation with GDP per capita: In general, the Resource and Efficiency economy scores correlate very well with per capita GDP and other measures of overall economic development.
- China and India: China and India are still quite low in the ranking (respectively 14<sup>th</sup> and 21<sup>st</sup>), but this reflects the fact that these countries are still relatively poor (at least on a nominal per capita GDP basis) and that ICT diffusion is still very uneven within these countries.
- Africa and South Asia: African and South Asian countries generally have a better ranking than the previous years. However, the Resource and Efficiency economies continue to show a great deal of dispersion in their scores, and this dispersion is linked to genuine developmental differences.



## Conclusions

### **Innovation-driven economies**

Many countries have achieved good results with deployment of broadband and 3G infrastructures, with penetration rates exceeding 65 percent of households in a good many countries, and more than 85 percent of businesses adopting broadband. There is a great deal of interest in faster networks and new technologies. But broadband by itself may only provide a necessary but not sufficient basis for countries to use ICT to drive future economic growth.

### **Efficiency-driven economies**

The Connectivity Scorecard demonstrates a very high correlation with broader measures of economic development for Resource and Efficiency economies. Such evidence suggests that whereas some technology and some services have been successfully localized and made affordable and relevant to local needs in even the poorest markets, a lot of other ICT is perhaps too expensive and not yet adapted for use in the poorest countries. Moreover, poor skills might be a major factor preventing adoption of such technologies in some emerging markets.