

Connectivity Scorecard 2011

Australia



Australia
6.93

| | Score | Weight |
|---------------------------------------|--------------|--------|
| Consumer Infrastructure | 0.67 (0.95)* | 0.13 |
| Consumer Usage and Skills | 0.54 (0.79)* | 0.13 |
| Business Infrastructure | 0.78 (0.86)* | 0.52 |
| Business Usage and Skills | 0.67 (0.83)* | 0.14 |
| Public sector Infrastructure | 0.43 (0.79)* | 0.07 |
| Public sector Usage and Skills | 0.66 (0.79)* | 0.02 |

*The score of the leading performer for this component

Table 1: Component Scores & Weights 2011

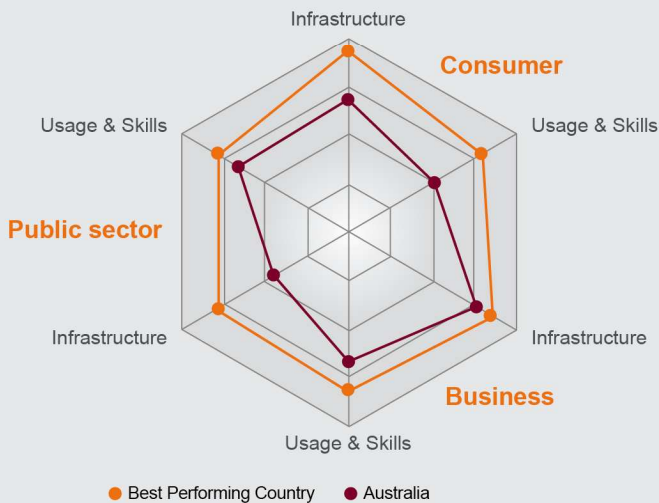


Fig 1: Component Scores 2011

Overview

Australia scores 6.93 and retains its ranking of 7th amongst the innovation-driven¹ economies on the Connectivity Scorecard 2011 index. With a score of 7.04, Australia had finished in the same position in 2010 as well.

As in the previous years, this year too Australia, Canada, Finland and the U.K. are ranked relatively close to each other. Hence, a certain amount of position-swapping between these countries is always possible.

Australia performs particularly well on business investment metrics, but somewhat less well on consumer metrics as depicted in Table 1.

Strengths

On the business infrastructure side, which also has a very high weight in the overall score, Australia does very well on measures of ICT investment per capita, business uptake of broadband, and on the penetration rate of secure Internet servers. Although Australia is less strong on the “business usage” front, it performs respectably on most metrics, and also in terms of the share of employment related to science and technology positions. On the public sector components, Australia rates highly in both aspects of the UN’s E-Government rankings that have been included this year—in terms of the availability of government services online, and in terms of e-Participation. On the consumer side, Australia performs well in terms of providing 3G and broadband coverage, although on these metrics, there is only limited difference

¹ As defined by The World Economic Forum www.weforum.org

in countries' performances. Another area where Australia is one of the stronger performers is in the share of 3G subscribers of all mobile subscribers as well as in terms Internet penetration.

Weaknesses

Australia's primary weaknesses lie on the consumer front. These include broadband speeds that are well below the levels of not just the leaders, Japan and Korea, but also many Western European nations; and voice and text usage levels that are surprisingly moderate. On the business front, it would be difficult to say that Australia has many weaknesses; but it gets moderate scores on some measures, notably the production rate of doctorates in Science and Engineering. On the government and public sector front, the country gets comparatively low scores on most of the spending metrics (i.e. spending by government, healthcare and educational sectors on ICT capital goods and ICT services) that were obtained from WITSA's Digital Planet database. This is somewhat surprising and may reflect idiosyncrasies of the data source relating to how various activities were measured and classified.

Conclusions

Australia continues to be one of the stronger performers on the Connectivity Scorecard. Its ranking as the 7th in a "Connectivity Scorecard" at first glance might seem surprising, for two reasons. First of all, Australia is known as a resources-driven economy, and secondly slow broadband speeds have prompted the Australian government into what could be considered a highly unusual policy stance for any developed country outside Japan and Korea, i.e. a huge amount of public investment into the National Broadband Network (NBN). Other countries have proceeded much more carefully when it comes to public funding. However, a deeper look provides a clearer view. The level of ICT investment in Australia has been exceptionally strong in recent years, reflecting investment made by the ICT-using industries in that country. Moreover, Australia has a comparatively higher skilled workforce and a sophisticated business sector. Finally, there is a statistical issue that benefits Australia's performance. Since ICT capital has been a major contributor to growth, and this ICT capital contribution is reflected in the weight given to business infrastructure, good performance in that area benefits Australia substantially. Had the analysis taken a simple average across all indicators, i.e., not weighted the business sector in the way that it actually does, Australia would have scored 6.42, and ranked 9th.

| Rank [2010] | Country | Connectivity Score |
|-------------|----------------|--------------------|
| 1 [1] | Sweden | 7.84 |
| 2 [2] | United States | 7.82 |
| 3 [4] | Denmark | 7.47 |
| 4 [5] | Netherlands | 7.45 |
| 5 [3] | Norway | 7.09 |
| 6 [8] | United Kingdom | 7.06 |
| 7 [7] | Australia | 6.93 |
| 8 [9] | Canada | 6.88 |
| 9 [6] | Finland | 6.78 |
| 10 [11] | Singapore | 6.40 |
| 11 [15] | Belgium | 6.31 |
| 12 [n/a] | Austria | 6.27 |
| 13 [17] | Germany | 6.27 |
| 14 [12] | Ireland | 6.08 |
| 15 [18] | France | 6.06 |
| 16 [10] | Japan | 5.89 |
| 17 [16] | New Zealand | 5.84 |
| 18 [13] | Korea | 5.80 |
| 19 [20] | Spain | 5.09 |
| 20 [19] | Czech Republic | 4.93 |
| 21 [21] | Portugal | 4.80 |
| 22 [22] | Italy | 4.79 |
| 23 [23] | Hungary | 4.50 |
| 24 [24] | Poland | 4.26 |
| 25 [25] | Greece | 4.22 |

*last year's rank in parenthesis

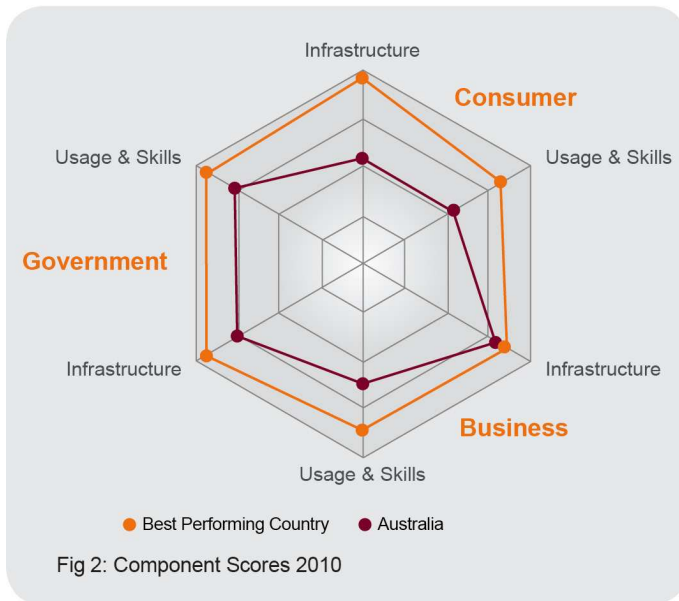
Table 2: Connectivity Scorecard 2011 Results – Innovation-driven Economies

2011 vs. 2010

Australia's score of 6.93 compares with its score of 7.04 in 2010 for the same 7th rank. As a note, this would have been the case even if the same weights were used as in 2010, with Australia finishing with a score of 6.95. As with other countries, the final Australian score reflected a balancing of two major trends in this year's Scorecard: the inclusion of new metrics that had an equalising effect on country scores in the consumer infrastructure component, and the inclusion of new metrics that dragged down country's scores on the "government" or "public" components.

The change in most countries' consumer infrastructure performance this year² is owed to the inclusion of three indicators which equalized the countries' performance. These three indicators are (a) fixed broadband coverage, (b) 3G coverage, and (c) unique user mobile penetration. On the first two indicators, most "innovation driven"

² For more information download the Connectivity Scorecard 2011 Report from www.connectivityscorecard.org



economies have at least 80% to 85% of their population covered by wireless and fixed-line broadband networks. On the third metric, most nations have at least 60% of their population that owns a mobile device, but the proportion seldom, if ever, exceeds 95%. Thus this indicator shows only a limited variation. If a more conventional but less merited indicator of “SIM cards per 100 population” (which is how many agencies measure mobile penetration) were used, the “mobile penetration” metrics would have shown more variation. The reason being that some countries have SIM card penetration rates of 150 per 100 population or more. The inclusion of these metrics pushed up Australia’s consumer infrastructure score.

The decrease in many countries’ government sector scores is due to the inclusion of additional metrics on public sector or quasi-public-sector investments in IT hardware, software and IT services. These new metrics had the effect of creating additional dispersion in country scores, with some country scores on the “public” or “government” subcategories falling substantially as a result of the inclusion of these metrics. Australia was one of the countries substantially affected by these new metrics, as its performance on the new indicators that were sourced from WITSA’s Digital Planet was not particularly strong.

The Connectivity Scorecard is based on comparative scores between countries, and, therefore, each country’s performance is measured in relation to the best performing nation in each component at a given point of time. As with other indices of relative rankings, it is therefore

hard to interpret the Scorecard in terms of absolute “improvements” or “deteriorations” and to make comparisons of scores over time.

About Connectivity Scorecard

The Connectivity Scorecard is a global ICT index which, unlike other available research, is the first of its kind to rank countries in terms of “useful connectivity”. That is, not only on the deployment of ICT infrastructure but also to measure the extent to which consumers, businesses and the public sector “make use” of connectivity technologies to enhance social and economic prosperity. This “useful connectivity” is defined as the bundle of infrastructure, complementary skills, software and informed usage that makes ICT the key driver of productivity and economic growth.

Commissioned by Nokia Siemens Networks, the study was created by Professor Leonard Waverman, Dean, Haskayne School of Business, University of Calgary, and Fellow, London Business School. The study was conducted by the consulting firms Berkeley Research Group and Communea.

For more information on the Connectivity Scorecard, visit www.connectivityscorecard.org

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