

# Connectivity Scorecard 2011

## Hungary



**Hungary**  
**4.50**

	Score	Weight
<b>Consumer</b> Infrastructure	0.59 (0.95)*	0.10
<b>Consumer</b> Usage and Skills	0.30 (0.79)*	0.10
<b>Business</b> Infrastructure	0.56 (0.86)*	0.43
<b>Business</b> Usage and Skills	0.34 (0.83)*	0.27
<b>Public sector</b> Infrastructure	0.21 (0.79)*	0.05
<b>Public sector</b> Usage and Skills	0.32 (0.79)*	0.03

\*The score of the leading performer for this component

Table 1: Component Scores & Weights 2011

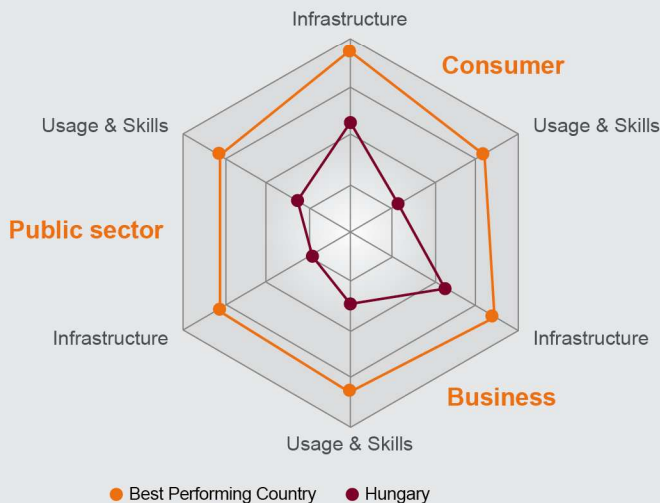


Fig 1: Component Scores 2011

### Overview

Hungary scores 4.50 and retains its ranking of 23<sup>rd</sup> among the innovation-driven<sup>1</sup> economies on the Connectivity Scorecard 2011 index.

In 2010, Hungary held the same rank with a score of 4.31. With these scores, Hungary is ahead of only Poland and Greece. The country stands as a weak performer in terms of ICT across all six components of the Scorecard and has to cover a lot of ground to catch up with Western Europe. However, despite its low score, Hungary has made some significant strides in ICT adoption particularly in terms of broadband coverage and Hungary outperforms its “transition” economy peers as well as several more affluent states in this aspect.

### Strengths

Hungary performs reasonably well in some components when benchmarked against its peers in Eastern Europe and the Southern European states. Hungary's strengths lie in fixed broadband coverage where it performs better than the usually higher-ranking Czech Republic. In addition, the country boasts more frequent Internet users than other transition economies and affluent economies like Ireland, Italy and Spain.

From a business perspective, the one metric on which Hungary performs well compared to leading innovation economies is business uptake of mobile data services. Hungary is also a solid performer on the UN's e-government service index relative to Eastern and Southern Europe. This is supported by European Commission data suggesting that almost 70% of Hungarian businesses make use of e-government services.

<sup>1</sup> As defined by The World Economic Forum [www.weforum.org](http://www.weforum.org)

## Weaknesses

Hungary's performance on the 2011 Connectivity Scorecard indicates significant weakness in almost all aspects of ICT infrastructure provision, adoption and usage. The country's biggest weaknesses lie in the consumer and business usage and skills components and in the government sector.

From a consumer perspective, Hungary's impressive broadband coverage is not matched by a high rate of usage. 3G coverage and penetration rates are amongst the lowest of all the innovation-driven economies, and adoption of Internet banking and shopping is still well behind the levels observed in Western Europe.

Hungary's business infrastructure score is pulled down by very low penetration rates for secure Internet servers, personal computer penetration and business broadband. This suggests that Hungarian business have been slow to embrace ICT in the workplace. Business usage and skills however is the component that lets Hungary down even more. Business spending on IT and corporate data services on a per capita basis is amongst the lowest in Europe, although all of the transition economies struggle in this regard. Less than half of Hungarian businesses have websites compared to 70%-85% in much of Western Europe. Additionally, Hungary produces relatively few engineering and science doctorates.

The government sector in Hungary is another area with significant scope for improvement. Per capita spending on IT hardware, software, communications and services is low in general, but also lags behind the Czech Republic which is Hungary's key benchmark within the Connectivity Scorecard.

## Conclusions

Hungary lags behind the rest of Europe on most measures of ICT deployment and adoption. The country has shown some progress, most notably in terms of fixed broadband coverage, but much remains to be done to catch up with the rest of Europe and indeed to keep up with peers like the Czech Republic. From the consumer side, the focus should be on encouraging residential broadband adoption and promoting the use of value enhancing online services. Hungarian businesses need to deepen their ICT infrastructure intensity and look to increase spending on IT services in order to stay competitive within the rest of the European market.

Rank [^]	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

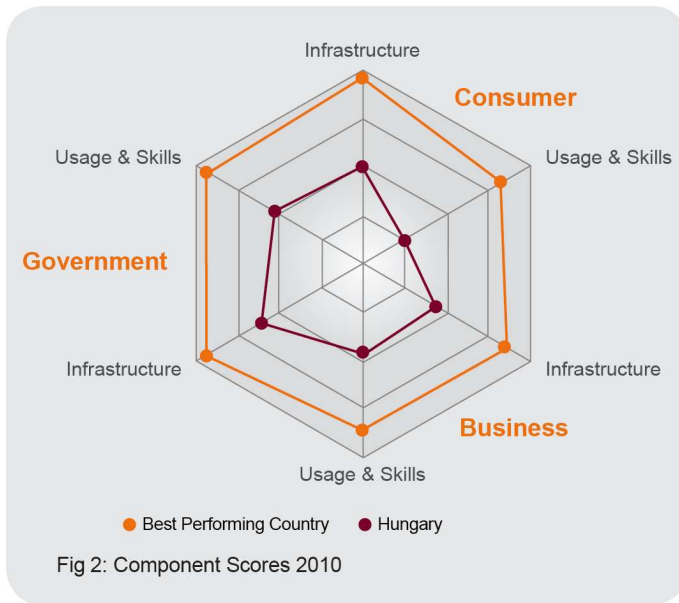
Table 2: Connectivity Scorecard 2011 Results – Innovation-driven Economies

## 2011 vs. 2010

Hungary scored 4.50 in 2011 compared to 4.31 in 2010 whilst unchanged in 23<sup>rd</sup> place. The variation in scores is mainly due to the change in weights. If the same weights were used as in 2010, Hungary's total score would have been 4.26. A significant change to be noted here is the change in component scores, in terms of an increase in consumer and business infrastructure and a decrease in both government sector scores.

The change in most countries' consumer infrastructure performance this year<sup>2</sup> 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" economies have at least 80% to 85% of their

<sup>2</sup> For more information download the Connectivity Scorecard 2011 Report from [www.connectivityscorecard.org](http://www.connectivityscorecard.org)



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 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 some more variation. The reason being that some countries have SIM card penetration rates of 150 per 100 or more.

Hungary’s improvement in the business infrastructure component is predominantly due to the inclusion of a measure of business uptake of mobile data services in the 2011 Connectivity Scorecard. Hungary is amongst the leading performers in Europe on this measure. However, there may be some issues with how “enterprise” lines are counted and used across countries.

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” components falling substantially as a result. The U.S. and some other leading countries did not experience quite this much decline, though some countries like Hungary did. However, in the Hungarian case, the decline in government scores was offset by increases in consumer infrastructure and also business infrastructure.

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 Communicea.

For more information on the Connectivity Scorecard, visit [www.connectivityscorecard.org](http://www.connectivityscorecard.org)

#### Business Contact

Kim Jones  
Nokia Siemens Networks  
[kim.jones@nsn.com](mailto:kim.jones@nsn.com)

#### Media Contacts

Riitta Mard, Media Relations  
Nokia Siemens Networks  
[riitta.mard@nsn.com](mailto:riitta.mard@nsn.com)

Andrzej Styliniski, Communications  
Nokia Siemens Networks  
[andrzej.styliniski@nsn.com](mailto:andrzej.styliniski@nsn.com)