

# Connectivity Scorecard 2011

## Czech Republic



**Czech Republic**  
**4.93**

	Score	Weight
<b>Consumer Infrastructure</b>	0.58 (0.95)*	0.10
<b>Consumer Usage and Skills</b>	0.32 (0.79)*	0.10
<b>Business Infrastructure</b>	0.59 (0.86)*	0.42
<b>Business Usage and Skills</b>	0.46 (0.83)*	0.29
<b>Public sector Infrastructure</b>	0.24 (0.79)*	0.05
<b>Public sector Usage and Skills</b>	0.28 (0.79)*	0.04

\*The score of the leading performer for this component

Table 1: Component Scores & Weights 2011

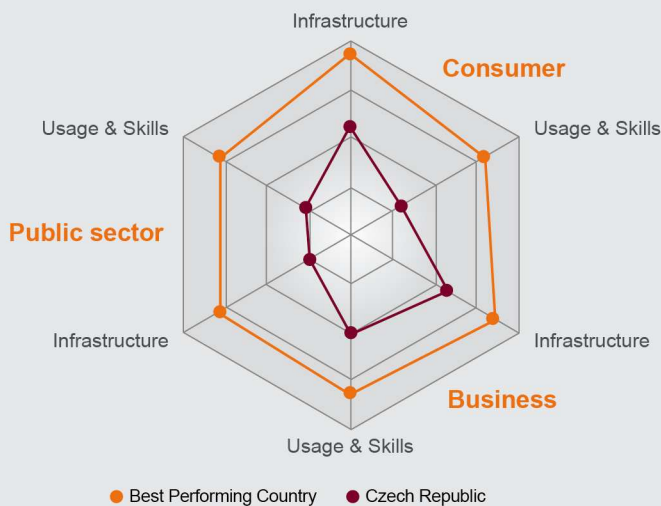


Fig 1: Component Scores 2011

### Overview

Czech Republic scores 4.93 and falls one place to rank 20<sup>th</sup> among the Innovation-driven<sup>1</sup> economies on the Connectivity Scorecard 2011 index. In 2010, Czech Republic held the 19<sup>th</sup> rank with a score of 5.03.

Although Czech Republic finishes towards the bottom of the table, it does outperform several more-affluent peers such as Italy, Portugal and Greece in various categories.

The Czech Republic performs reasonably well on some measures of consumer infrastructure, particularly with respect to the quality of its broadband infrastructure, but is let down by poor consumer usage and government sector scores. The country has shown some improvement in recent years and has established itself as the leading performer among the “transition” economies.

### Strengths

From a consumer perspective, the Czech Republic performs well in two areas, namely wireless telephone penetration and the quality of its broadband infrastructure. Wireless penetration is around 90% which is above the level observed in several advanced economies. Moderate internet connection speeds and the proportion of IP addresses above 5 Mbps are both above European averages, albeit well behind global leaders such as Korea and Japan.

The Czech Republic is not a top performer on any business metrics but does perform better than several more-affluent Western European economies on business usage of mobile data services, and new data protocols and enterprise telephony. More than 70% of Czech businesses have websites which is above the European average. The country also does well in terms of producing and employing graduates in scientific and technical fields.

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

## Weaknesses

The Czech Republic needs to improve in the areas of consumer infrastructure adoption and consumer usage. Broadband penetration is less than 50% compared to an average of over 60% in the innovation-driven economies of Europe. Although mobile phone penetration is reasonably high, the share of 3G connections is low. Fixed line penetration is also low, although this may be because new consumers are bypassing fixed line technology altogether.

From a consumer usage and skills perspective, the biggest disparities between the Czech Republic and the leading European economies relate to Internet usage. A little over 30% of the population are reported to be regular Internet users and less than 20% use Internet banking. In comparison, 60-70% of the population of many leading countries are regular Internet users. Fixed voice usage is the lowest of all the innovation economies, but this is presumably driven by low fixed line penetration and a preference for mobile calls and text messages.

The business sector suffers from low penetration rates for core ICT infrastructure such as secure internet servers and personal computers. Added to this, per capita business spending on IT and corporate data services is amongst the lowest in Europe. The country spends less than 40% of the European average on both measures.

The government or public sectors represent another considerable area of weakness for the Czech Republic. Per capita government spending on IT hardware, software, communications and services is low by innovation-driven economy standards. However, the country does manage to outperform the other “transition” economies and several Southern European states. The Czech Republic is given a fairly low ranking on the UN’s e-government services and participation indices which is also supported by the European Commission’s data on the use of e-government services.

## Conclusions

The Czech Republic has cemented its position as the leading performer amongst the “transition” economies. The country appears to be pulling away from peers such as Hungary and Poland and compares favourably with more affluent European nations on several measures, particularly with respect to the quality of its broadband infrastructure. The Czech Republic however still lags

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

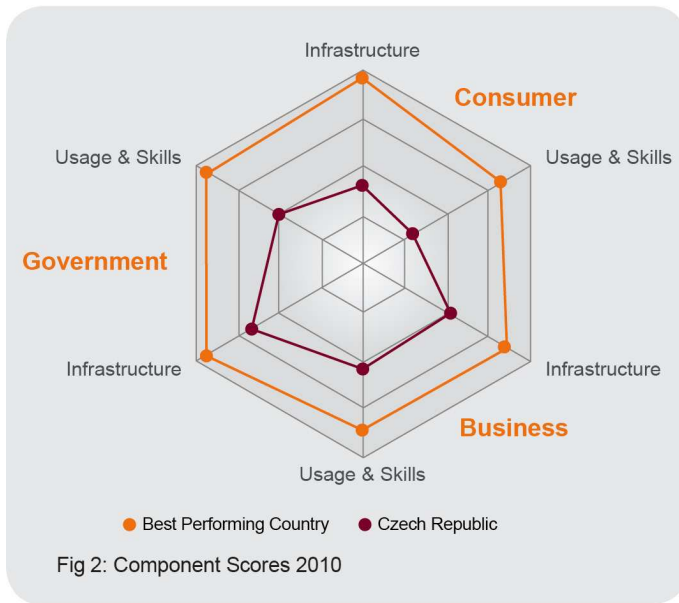
behind Western Europe in terms of Internet usage and ICT intensity in the business sector. The country has made some impressive strides in recent years, but more effort is needed to fully harness the power of ICT and develop a knowledge economy.

## 2011 vs. 2010

The Czech Republic’ scored 4.93 in 2011 compared to 5.03 in 2010. Had we used last year’s weights, the Czech Republic’s total score would have been 5.12 and the country’s rank would have improved one position to 19<sup>th</sup>. Also of some significance are the changes in scorecard component scores, most notably 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

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



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

The Czech Republic's improvement in the business infrastructure category is predominantly due to the inclusion of previously unavailable data relating to the use of new data protocols and a new metric measuring business uptake of mobile data.

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. The inclusion of 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. The U.S. and some other countries did not experience this decline, whereas some countries like the Czech Republic experienced a considerable decline. In the case of the Czech Republic, this decline in government scores

outweighed the effects of the increase in consumer and business infrastructure scores.

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](http://www.connectivityscorecard.org)

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