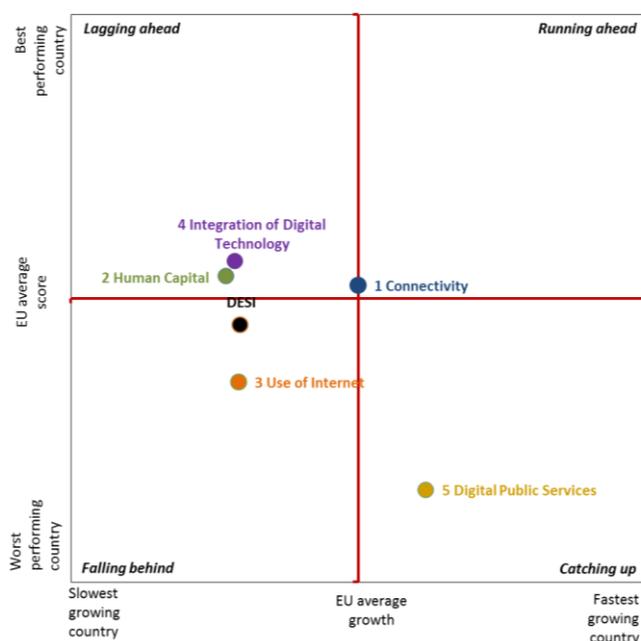


Europe's Digital Progress Report (EDPR) 2016

A report complementing the Digital Economy and Society Index (DESI)¹ country profile

CZECH REPUBLIC

The Czech Republic ranks 17th out of the 28 EU Member States in the European Commission Digital Economy and Society Index (DESI) 2016², down from 15th place a year before. The Czech Republic is part of the **falling behind** cluster³ of countries because its DESI score is below the EU average and grew slower than that of the EU over the last year. While performing averagely in Connectivity, progress is slow in terms of human capital and almost the same applies for the integration of digital technology by businesses. Some progress took place in the development of digital public services but performance remains limited both on the supply and the demand side.



1 – Connectivity

The Czech Republic's performance in the five DESI dimensions relative to other EU countries

In Connectivity, the Czech Republic's performance and progress are at the EU average level. The country maintains its level of fixed broadband coverage of households (98%) and progressed in next generation access (NGA) coverage (73%), slightly better than the EU average (respectively 97% and 71%). However in rural areas only 6% of households are covered by NGA; this is much below the 28% average across the EU. Take-up of subscriptions to fixed fast (≥ 30 Mbps) broadband is at 31% of subscriptions; so close to the EU average of 30%. On the mobile side, more than 90% of population is covered by LTE networks. However, in terms of assignment of harmonised spectrum, at 55%, the Czech Republic is ranked 23rd in the EU. The tender launched on 3 February 2016 in the 1800 MHz and 2600 MHz bands is expected to raise the level of assignment to 64%; but this is still below the EU average of 69%. Meanwhile, in terms of mobile broadband take-up, the Czech Republic is also below the EU average (respectively 71 and 75 subscribers/100 people).

In the 2014-2020 Programming period, the Czech Republic allocated a significant share of its European Structural and Investment Funds to the deployment of broadband infrastructure. In the Operational Programme Enterprise and Innovations for competitiveness (OPEIC), €520 Million are available and should be able to significantly narrow down the gap in rural broadband coverage.

¹ The Digital Economy and Society Index (DESI) is a composite index developed by the European Commission (DG CNECT) to assess the development of EU countries towards a digital economy and society. It aggregates a set of relevant indicators structured around 5 dimensions: Connectivity, Human Capital, Use of Internet, Integration of Digital Technology and Digital Public Services. It clusters countries in four groups: Running ahead, Lagging ahead, Catching up and Falling behind. For more information about the DESI please refer to <https://ec.europa.eu/digital-single-market/en/desi>

² DESI Country Profile for the Czech Republic: <https://ec.europa.eu/digital-single-market/en/scoreboard/czech-republic>

³ Other falling behind countries are Bulgaria, Greece, France, Hungary, Poland and Slovakia.

However, the initiative has been delayed: the OPEIC was adopted late and the thematic ex-ante conditionality⁴ has not been fulfilled yet (end of April).

Deployment of rural broadband is of key importance to businesses and citizens in rural areas. The Czech Republic still has to transpose the Cost Reduction Directive⁵ which could help to reduce the infrastructural gap.

2 – Human Capital

In Human capital, the Czech Republic's performance is just above the EU average but its progress is below average. Czechs are relatively digitally skilled with 57% of citizens having at least basic digital skills. The number of STEM (science, technology and mathematics) graduates is stable with 17 per 1000 Czechs aged 20-29 years old holding this type of degree, the same as in the previous year, and slightly below the EU average. STEM graduates are important drivers for the use of digital in the economy including the most cutting-edge technologies.

On 1 July 2015, the government approved the national Digital Literacy Strategy for the period 2015 to 2020, which aims to prepare its citizens to use digital technologies for lifelong personal development and to improve the quality of their lives and societal inclusion. The strategy aims to ensure that the workforce is digitally skilled and supports employees (especially for SMEs and the self-employed) to fully use the potential of digital technologies, lower digital skills gap and increase national competitiveness. The variety of measures included in the Digital Literacy Strategy represents a major step forward in the Czech Republic's digital literacy policy. The Strategy foresees a total financial cost of approximately €270 Million with the funding coming from the State budget and EU funds.

The Czech Republic will greatly benefit from implementing such a comprehensive plan.

3 – Use of Internet

In the use of Internet services, the Czech Republic's performance is below the EU average and its progress is limited. Czech Internet users engage in a broad range of online activities. Czech Internet users are quite keen on online banking (58%) and online shopping (52%) too. They read the news online, listen to music, watch films and play games online and use the Internet to communicate through social networks. On the other hand, online video calls are much less common.

⁴ Ex-ante conditionality 2.2. concerning Next Generation network (NGN) Infrastructure in the framework of the European Structural and Investments Funds for the Programming Period 2014-2020 is defined as follows: The existence of national or regional NGN Plans which take account of regional actions in order to reach the Union high-speed Internet access targets, focusing on areas where the market fails to provide an open infrastructure at an affordable cost and of a quality in line with the Union competition and State aid rules, and to provide accessible services to vulnerable groups.

⁵ Directive 2014/61/EU of the European Parliament and of the Council of 15 May 2014 on measures to reduce the cost of deploying high-speed electronic communications networks (OJ L155, 23 May 2014, p. 1)

4 – Integration of Digital Technology

In Integration of digital technologies by businesses the Czech Republic's performance is above the EU average but its progress is limited. Czech SMEs are among the EU leaders in selling online but they are at risk of losing their position, having fallen from down from the 2nd place the previous year to the 6th place. Despite a slowdown, Czech businesses are taking advantage of the possibilities and benefits offered by digital technologies, both to improve their efficiency and productivity as well as to access wider markets. 23% of SMEs are selling online (vs 16% in the EU) and 12% are doing so cross border (vs 8% in the EU).

A national Industry 4.0 initiative ("Průmysl 4.0") was adopted on 15 September 2015. The follow-up "Action Plan for the implementation of Industry 4.0" includes measures to support the further development of the digital economy through investment and standardization, applied research, human resources development and continuing education, cyber security and relevant legislation, application of innovative technologies in energy, transport and Smart Cities.

Highlight: "Průmysl 4.0" (Industry 4.0)

On 15 September 2015 the national initiative Industry 4.0 was adopted. This strategy, which takes stock of the baseline condition of the Czech Republic for the implementation of this latest industrial revolution, has been widened and now deals with issues such as technological assumptions and vision, applied research, standardisation, safety, labour market, educational system and regulatory environment. The long-term objective of this initiative is to maintain and boost the competitiveness of the Czech Republic.

The first industrial revolution was the mechanization of production using water and steam power; the second introduced mass production with the help of electricity; the third, the digital revolution, led to the automation of production; the fourth industrial revolution consists of the intelligent networking of product development and production, logistics and customers.

5 – Digital Public Services

In digital public services the Czech Republic's performance is below the EU average but it's making progress. The Czech Republic has one of the lowest shares of eGovernment users in the EU. In 2015, only 12% of internet users sent forms to the public administration online, compared with an EU average of 32%. The low use of online public services reflects deficiencies in the supply of such services. For instance on average only 70% of the steps in a standard interaction with the public administration can be performed entirely online, compared with an EU average of 81%.

On 2 November 2015, the Czech government approved the "Strategy for ICT Services Development in Public Administration". The document summarises the actual situation in the development of e-government, including current gaps and inefficiencies. Specific measures include a stronger role for the Government Council for Information Society and attributing the role of "watchdog" to the Department of the Chief Architect of eGovernment at the Ministry of the Interior so that it can oversee the efficiency of public spending in public administration in the ICT area. Under the Integrated Regional Operational Programme co-funded by EU funds, significant allocations are envisaged to finance the development of eGovernment services. Another positive policy development is the adoption of a new law for obligatory open data publishing in a machine readable format for all public authorities and the obligatory public administration use of secure Internet domain's names with DNSSEC.

The Czech Republic will greatly benefit from the implementation of the strategy now in place. Using various platforms and funding mechanisms, the EU is contributing to the sharing of best practices between EU Member States - for instance through the Join-up platform <https://joinup.ec.europa.eu/> through the ISA programme <http://ec.europa.eu/isa/> and the Connecting Europe Facility (CEF) <https://ec.europa.eu/cefdigital> .