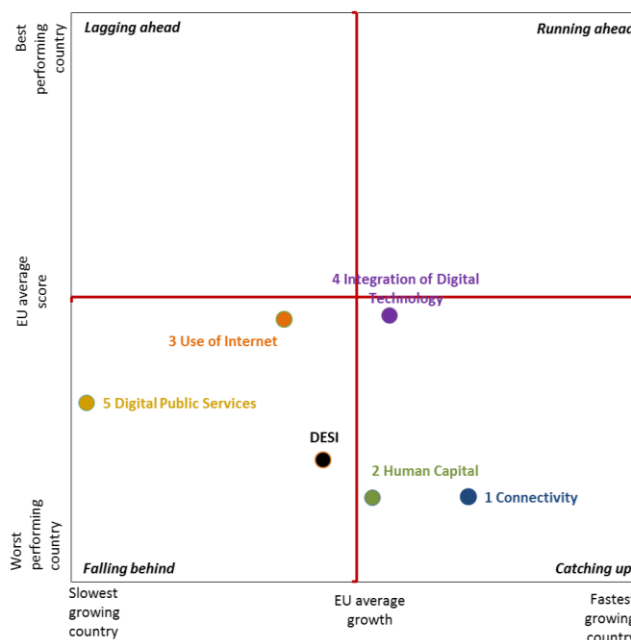


Europe's Digital Progress Report (EDPR) 2016

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

CYPRUS

Cyprus ranks 23rd out of the 28 EU Member States in the European Commission Digital Economy and Society Index (DESI) 2016². Cyprus is part of the **falling behind** cluster³ of countries: its score is lower than the EU average and over the last year it grew at a slower pace than the rest of the EU. Cyprus made most progress in connectivity, driven by increased NGA coverage. However, take up of broadband remains below average. Businesses and citizens use digital technologies at European average levels. Despite progress, digital skills levels remain relatively low, and the provision of online public services progresses slowly. In February 2012, Cyprus launched a “Digital Strategy”⁴, in line with the Digital Agenda for Europe. In addition to the development of future-proof network infrastructure, the strategy foresees the further digitisation of public services, increased digital literacy, the fostering of the digital economy, and the use of ICT for the environment.



Cyprus' performance in the five DESI dimensions relative to other EU countries

1 – Connectivity

In connectivity, Cyprus' performance is below par but progress is faster than the EU average, with a remarkable achievement on the supply side: 100% of households are covered by fixed broadband and high-speed broadband is available to 84% of them (against 71% of European households). However, on the demand side, only 69% of households subscribe to fixed broadband and only 66% of Cypriots subscribe to mobile broadband (against an EU average of 75%).

In February 2012, Cyprus launched a “Digital Strategy”, in line with the Digital Agenda for Europe targets (100% coverage with 30 Mbps until 2020; 50% take-up rate for 100 Mbps). Cyprus follows a market-based approach to achieve its targets as regards network deployment. Some public financial resources are nevertheless being planned for the deployment of NGA networks. The competitiveness and sustainable development Operation Programme includes a total of €19 Million (plus €3,35

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 Cyprus: <https://ec.europa.eu/digital-single-market/en/scoreboard/cyprus>

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

⁴ Ψηφιακή Στρατηγική της Κύπρου

http://www.mcw.gov.cy/mcw/dec/digital_cyprus/ict.nsf/index_gr/index_gr?opendocument

Million of national contribution) funding for ultra-high-speed broadband networks. Furthermore, in early 2016 Cyprus launched a competitive procedure for the assignment of three rights of use for radio frequency in the 800 and 2600 MHz bands, to deploy a 4G broadband network, with speeds of at least 30 Mbps, covering 50% until end-2018 and 75% until end-2020 of the territory which is under the effective control of the Republic of Cyprus. Cyprus still has to transpose the Cost Reduction Directive⁵ which could help to speed up broadband roll-out.

Cyprus will benefit from monitoring the implementation of its Digital Strategy, adapting it and updating it to the current financial situation.

2 – Human Capital

In terms of Human Capital, Cyprus's performance is below the EU average, but progress is being made. In 2015 70% of the Cypriot population used the internet regularly (versus 76% EU average) and only 43% possessed at least basic levels of digital skills. Nowadays digital skills and competences are needed for nearly all jobs where digital technology complements existing tasks, and shortages can be an important barrier to the country's economic development. Moreover, Cyprus has a low share of Science, Technology, Engineering and Math (STEM) graduates (ranking 27th in the EU) and a lower share of ICT specialists in the workforce than the EU average. The digital skills deficit may impede the potential of the digital economy.

To address this challenge, a National Coalition for Digital Jobs was set up in the end of 2015. It brings together 40 organisations from the public, private and academic sectors. This coalition is part of the network of national coalitions affiliated to the Grand Coalition for Digital Jobs initiative of the European Commission. Furthermore, there are several organisations that offer digital skills training. Among those, the Human Resource Development Authority of Cyprus (HRDA) promotes company training programmes that improve the knowledge and skills of the employees on ICT. On the education side, according to a report of the European Schoolnet,⁶ coding and programming is a compulsory subject in lower secondary and in the first year of upper secondary school (ages 13-16) as part of a specialised computing course. It is offered as an option in the last two years of upper secondary school (ages 17-18). ICT-related training is mandatory for incoming teachers. This training is offered by universities and pedagogical institutes as part of general initial teacher training, or by teacher training centres as part of in-service training. For instance, the Cyprus Pedagogical Institute is implementing various ICT training activities for school teachers and other executives at various levels. Finally, the Adult Education Centres are organising ICT classes for the general public within a lifelong learning framework.

As mentioned above, Cyprus has undertaken a few very important initiatives aimed at alleviating its digital skills shortfall. It is important to grow and strengthen these initiatives as well as provide leadership, cooperation among diversified stakeholders and key resources towards digital skills development. The National Coalition for Digital Jobs is a stepping stone in this direction because it can help to break down silos and make collaboration happen, especially in government, education and industry. If successful, it could help to build digital skills capacity with business relevance.

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)

⁶ Computing our future Computer programming and coding - Priorities, school curricula and initiatives across Europe, European Schoolnet, October 2014

3 – Use of Internet

Cypriot Internet users engage in a wide range of online activities, such as reading news online, listening to music, watching films and playing games online, using the Internet to communicate via voice or video calls and participating to social networks. For most of these activities, engagement among Cypriots is higher than overall in the EU. Nonetheless, Cypriots refrain most when they need to engage in online transactions, like eBanking (29%) and online shopping (32%), which have not grown over the past year and are much lower than the EU average (57% and 65%, respectively), revealing a certain distrust in the online environment.

4 – Integration of Digital Technologies

Digital technologies are profoundly changing all business functions and industries. They transform processes, business models and the customer experience. Their adoption by businesses is a catalyst for economic development and labour productivity growth. Cyprus's performance is below par in terms of Integration of Digital Technology by businesses, but its progress is faster than the EU average. The percentage of businesses using technologies such as electronic information sharing (ERP – 43%) and social media (30%) are well above the EU average (36% and 18%, respectively). However, not many Cypriot businesses use RFID, eInvoices, or cloud services. Cypriot businesses also need to take advantage of the possibilities offered by online commerce. Very few SMEs in Cyprus sell online (10%) and even less sell online to other EU member states (8.3%), probably because of transport costs, but surprising in the case of tourism.

The Digital Strategy Action Plan of Cyprus for 2015-2017 includes specific funding schemes (€4.5 Million) for helping SMEs with the deployment of ICT for their internal operations as well as in their customer service chain. The objective of the funding schemes is to increase the development of local applications for the Internet, based on cloud computing services. In addition, they aim at increasing the use of eCommerce so that Cypriot businesses increase their turnover, at home and abroad. In parallel the Ministry of Energy, Commerce, Industry and Tourism is promoting a set of new regulations concerning the current eCommerce Law that is expected to regulate and clarify existing procedures in a better manner as well as to improve citizens' trust in online markets. After all, the Cybersecurity Strategy of the Republic of Cyprus (OCECPR) already aims to establish a safe electronic environment in the Republic of Cyprus, with specific considerations and actions for the protection of critical information infrastructures.

The Cypriot government has put in place a number of promising policies aimed at enhancing the adoption of digital technologies by businesses. Cyprus will benefit from a timely implementation of the strategy, especially given the economic importance of tourism in the country. Finally, Cyprus does not have an Industry 4.0 strategy and it is important to take action to develop such a strategy.

5 – Digital Public Services

In Digital Public Services, Cyprus' performance and progress are below EU average. The development of more sophisticated online services could attract more active eGovernment users.

The eGovernment Strategy of the Republic of Cyprus covers the period 2014-2020 and applies to all ministries, departments and services of the Cypriot government focusing on technical, operational and organisational aspects of the provision of electronic services (eServices) to citizens and businesses. Initiatives affecting back-office systems or government ICT infrastructures are also foreseen by the eGovernment Strategy, provided that they assist the government to achieve its objectives up to 2020, whilst being in line with the EU policies and directives. The objectives of the eGovernment strategy of Cyprus are to enhance public sector capacity while reducing operational

costs; deliver additional eServices, which will be flexible, accessible, complete, easy and secure; and facilitate cross-border collaboration at European level. The strategy foresees major strategic interventions. Among those are the provision of advanced electronic identification and electronic signatures, an Integrated Information System that will digitise the Justice sector supporting the automation of all court processes, the creation of an Integrated Health Information System and many others. To accelerate the implementation of projects, in May 2015 the Council of Ministers decided to establish the Electronic Governance Council, which aims to approve, implement and monitor the progress of all IT/ eGovernment projects and policy development of eGovernment issues.

The eGovernment Strategy of Cyprus appears to be comprehensive and offers a path towards the design of effective online services and tools that will increase transparency and efficiency. A timely and effective implementation of the strategy and its actions could also enable greater citizen trust and participation.

Highlight: eProcurement System of the Public Procurement Directorate of the Treasury of the Republic of Cyprus

The eProcurement System⁷ (ePs) is a secure and interoperable web-based application of the Republic of Cyprus (utilizing Open Source Software), which constitutes a comprehensive solution for the implementation of electronic procedures in conducting public procurement competitions. Since November 2009 ePs is fully functional and serves all Contracting Authorities in Cyprus for free, for all types of Procedures and all types of public procurement competitions. The system complies with the provisions of the European and Cypriot Law of public procurement. In September 2011, the Treasury of the Republic was awarded the Innovation Award of 2010, for the wider public sector, thanks to the development and implementation of the eProcurement System. Furthermore, ePs placed Cyprus first in the area of eProcurement amongst the Member States of the EU. Finally, it was awarded the Good Practice Label in the framework of the 4th European eGovernment Awards of 2009.

The ePS in Cyprus is decentralized and the Contracting Authorities include the Central Government (Ministries, Independent authorities), Municipalities and Local Authorities, Bodies Governed by Public Law, and the Utilities Sector.

There are around 6000 Registered Economic Operators on the Platform and 1000 foreign Economic Operators. Every year about 4000 competitions are launched. Moreover, the value of the procurement exceeds €1 Billion and the value of online purchasing by the public sector is approximately €20 Million.

⁷ Ηλεκτρονικό Σύστημα Σύναψης Συμβάσεων <https://www.eprocurement.gov.cy/ceproc/home.do>