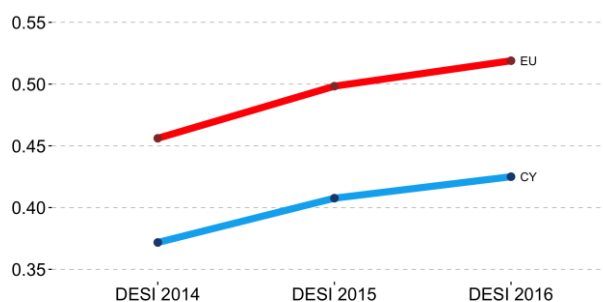
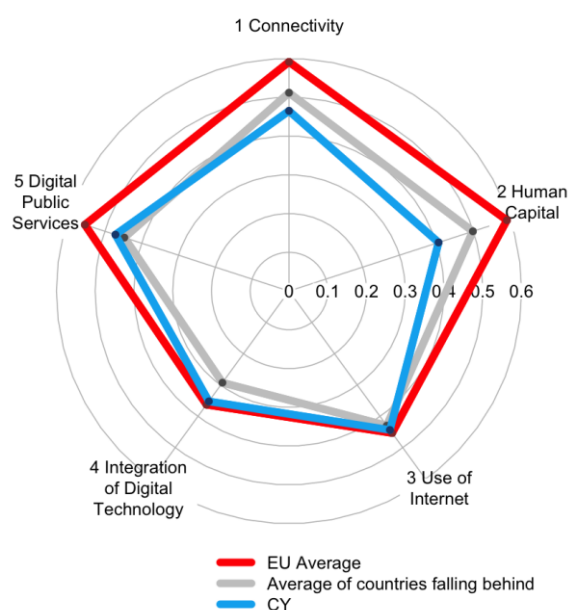


Digital Economy and Society Index¹ 2016²

Country Profile

Cyprus

In DESI 2016, Cyprus has an overall score³ of **0.42** and ranks **23rd** out of the 28 EU Member States. Fast broadband connections are available to 84% of households (against 71% in the EU) but internet take-up is relatively low. Only 69% of households subscribe to fixed broadband, potentially limiting Cyprus' ability to exploit the benefits of the digital economy. Cyprus lags behind on the demand side: 26% of the population has never used the Internet and only 43% possess at least basic levels of digital skills. Although Cypriots engage in a broad range of online activities, their use of online banking (29%) and online shopping (32%) are much lower than the EU average. Low levels of trust seem to be holding back the development of its digital economy. Cyprus' score was lower than the EU average and over the last year, the score grew at a slower pace than the EU. As such, Cyprus is part of the **falling behind**⁴ cluster of countries.



	Cyprus rank	Cyprus score	Cluster score	EU score
DESI 2016	23	0.42	0.44	0.52
DESI 2015	23	0.41 ⁵	0.44	0.5

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. For more information about the DESI please refer to <http://ec.europa.eu/digital-agenda/en/digital-agenda-scoreboard>

² The DESI 2016 is constructed from indicators referring mostly to the calendar year 2015 (except when data is not available for that calendar year, in which case the latest prior data was used).

³ DESI scores range from 0 to 1, the higher the score the better the country performance.

⁴ In the DESI 2016, Cyprus is part of the cluster of countries that are falling behind: countries who score below the EU average and whose score still grew slower than that of the EU as a whole (in comparison to the DESI 2015). Other falling behind countries are Bulgaria, Czech Republic, Greece, France, Hungary, Poland and Slovakia.

⁵ The DESI 2015 was re-calculated for all countries to reflect updates and corrections to the underlying indicator data (which took place between May 2015 and January 2016). As such, country scores and rankings may have changed from the previous publication. For further information, please consult the DESI methodological note.

1 Connectivity

1 Connectivity	Cyprus		Cluster score	EU score
	rank	score		
DESI 2016	25	0.46	0.51	0.59
DESI 2015	26	0.42	0.5	0.57

In terms of connectivity Cyprus performs relatively worse than most of other EU countries, without exhibiting significant improvement compared to the previous year. With an overall Connectivity score of 0.46 the country ranks 25th among EU countries. Despite the fact that 100% of Cypriot households are covered by fixed broadband 31% of them do not yet subscribe to it.

	Cyprus				EU DESI 2016 value
	DESI 2016		DESI 2015		
	Value	rank	value	rank	
1a1 Fixed BB Coverage % households	100% → (Jun- 2015)	1	100% (Dec- 2014)	1	97% (Jun- 2015)
1a2 Fixed BB Take-up % households	69% ↑ (2015)	14	68% (2014)	13	72% (2015)
1b1 Mobile BB Take-up Subscribers per 100 people	66 ↑ (Jun- 2015)	18	57 (Dec- 2014)	21	75 (Jun- 2015)
1b2 Spectrum % of the target for spectrum to be harmonised at EU level	30% ↓ (Dec- 2015)	28	31% (Dec- 2014)	28	69% (Dec- 2015)
1c1 NGA Coverage % households, out of all households	84% ↑ (Jun- 2015)	12	80% (Dec- 2014)	13	71% (Jun- 2015)
1c2 Subscriptions to Fast BB % of subscriptions >= 30Mbps, out of fixed BB subscriptions	4.3% ↓ (Jun- 2015)	26	4.4% (Dec- 2014)	25	30% (Jun- 2015)
1d1 Fixed BB Price % individual gross income spent for the cheapest standalone Fixed Broadband subscription (lower values are better)	2.8% ↓ (Access cost: 2015; Income: 2014)	28	3.6% (Access cost: 2014; Income: 2014)	28	1.3% (Access cost: 2015; Income: 2014)

Cyprus' ability to exploit the benefits of the digital economy may be negatively affected by the low take up of mobile broadband and the comparatively low take up of fast fixed broadband.

One of the culprits for the low take-up of broadband in Cyprus might be the subscription price, which is the most expensive in the EU, although it declined since last year. An individual seeking to subscribe to a broadband connection⁶ must spend on average 2.8% of her gross income (EU average is 1.3%).

The Connectivity silver lining in Cyprus' case is high-speed Internet access, where it performs better than the EU at large. Networks capable of providing at least 30 Mbps are available to 84% of Cypriot households (against 71% in the EU). However, take-up is very low since only 4.3% of fixed Internet subscriptions are to high-speed connections.

⁶ Calculations performed taking into account the price of the least expensive standalone fixed broadband connection offering speeds between 12 Mbps and 30 Mbps. In case of Cyprus, the selected offer includes also cable TV, since no standalone service was available.

2 Human Capital

2 Human Capital	Cyprus		Cluster score	EU score
	rank	score		
DESI 2016	25	0.41	0.5	0.59
DESI 2015	24	0.39	0.48	0.58

With a Human Capital score of 0.41, Cyprus ranks 25th among EU countries, one ranking number lower than in the previous year.

	Cyprus				EU DESI 2016 value
	DESI 2016		DESI 2015		
	value	rank	value	rank	
2a1 Internet Users % individuals (aged 16-74)	70% (2015) ↑	20	65% (2014)	22	76% (2015)
2a2 Basic Digital Skills % individuals (aged 16-74)	43% (2015)	25	n.a.	-	55% (2015)
2b1 ICT Specialists % employed individuals	2.4% (2014) ↑	24	2.3% (2013)	23	3.7% (2014)
2b2 STEM Graduates Graduates in STEM per 1000 individuals (aged 20 to 29)	8.2 (2013) ↓	27	9 (2012)	27	n.a.

In order to fully develop its digital economy and society, Cyprus needs to engage its citizens to use the Internet. Cyprus has a low level of regular Internet users (70%), and 26% of the Cypriot population has never used the Internet (the EU average is 16.4%). This means that over one-fourth of the population cannot partake on the possibilities offered by the Internet, nor can they contribute to the digital economy.

Cyprus needs to address its severe digital skills gap, as insufficient levels of digital skills limit the exploitation of benefits for investments in digital technologies as well as gains for citizens for engaging in a wide range of on-line activities. Digital skills are nowadays needed in every corner of the workforce, and the fact that only 43% of Cypriots possess at least basic levels of digital skills can be an important barrier to the country's economic development. Finally, Cyprus has a lower share of ICT specialists⁷ in the workforce (2.4%) than the EU average (2.3%).

Cyprus also performs worse than the EU average in terms of STEM (science, technology and mathematics) graduates, with only 0.82% of Cypriots aged 20-29 years old holding a STEM degree. As a result there is a digital skills deficit, which impedes the potential of the digital economy for growth and jobs.

⁷ Broad definition taken from JRC (IPTS) "The evolution of EU ICT employment 2000-2012" Technical report (forthcoming): ISCO codes 25 and 35, plus ICT graduates in certain adjacent ISCO codes.

3 Use of Internet

3 Use of Internet	Cyprus		Cluster score	EU score
	rank	score		
DESI 2016	16	0.44	0.43	0.45
DESI 2015	14	0.44	0.42	0.43

Propensity of individuals to use Internet services is the DESI 2016 dimension where Cyprus performs best compared to all other dimensions. It scores 0.44 and ranks 16th among EU countries; however, two ranking numbers lower than in the previous year. Nonetheless, Cypriots appear to refrain most from using the Internet when they need to make transactions, as the country lags behind both in online banking and online shopping.

	Cyprus				EU DESI 2016 value
	DESI 2016		DESI 2015		
	value	rank	value	rank	
3a1 News % individuals who used Internet in the last 3 months (aged 16-74)	79% (2015) ↑	12	72% (2014)	17	68% (2015)
3a2 Music, Videos and Games % individuals who used Internet in the last 3 months (aged 16-74)	55% (2014)	10	55% (2014)	10	49% (2014)
3a3 Video on Demand % households that have a TV	23% (2014)	17	23% (2014)	17	41% (2014)
3b1 Video Calls % individuals who used Internet in the last 3 months (aged 16-74)	62% (2015) ↑	3	59% (2014)	3	37% (2015)
3b2 Social Networks % individuals who used Internet in the last 3 months (aged 16-74)	75% (2015) ↑	5	72% (2014)	3	63% (2015)
3c1 Banking % individuals who used Internet in the last 3 months (aged 16-74)	29% (2015) ↓	25	35% (2014)	24	57% (2015)
3c2 Shopping % individuals who used Internet in the last year (aged 16-74)	32% (2015) ↓	26	38% (2014)	24	65% (2015)

Cypriot Internet users engage in a broad range of online activities. They read news online (79%), listen to music, watch films and play games online (55% in 2014), use the Internet to communicate via voice or video calls (62%) or through social networks (75%), and obtain video content using their broadband connections (though Video on Demand – 23%). For most of these activities, engagement among Cypriots is higher than overall in the EU.

While Cypriots are keen to engage in the above Internet activities, they are very reluctant to engage in any type of online transaction, possibly because of lack of trust. The shares of Cypriot Internet users that use online banking (29%) or shop online (32%) are worse than last year (35% and 38%, respectively) and much lower than the EU average (57% and 65%, respectively). This is the key challenge for Cyprus in terms of Internet use by its citizens, because a digital economy is partly fuelled by its citizens' consumption in the online channel.

4 Integration of Digital Technology

4 Integration of Digital Technology	Cyprus		Cluster score	EU score
	rank	score		
DESI 2016	17	0.35	0.29	0.36
DESI 2015	17	0.31	0.31	0.33

Integration of Digital Technology by businesses is the dimension where Cyprus has remained relatively stable compared to the previous year. With a score of 0.35 Cyprus ranks 17th among EU countries. In particular, Cyprus' businesses need to better exploit the possibilities offered by on-line commerce and cloud-based applications.

	Cyprus				EU DESI 2016 value
	DESI 2016		DESI 2015		
	value	rank	value	rank	
4a1 Electronic Information Sharing % enterprises (no financial sector, 10+ employees)	43% (2015) ↑	7	36% (2014)	12	36% (2015)
4a2 RFID % enterprises (no financial sector, 10+ employees)	3.1% (2014)	18	3.1% (2014)	18	3.8% (2014)
4a3 Social Media % enterprises (no financial sector, 10+ employees)	30% (2015) ↑	4	24% (2014)	4	18% (2015)
4a4 eInvoices % enterprises (no financial sector, 10+ employees)	5.1% (2015) ↑	27	3.5% (2014)	28	n.a.
4a5 Cloud % enterprises (no financial sector, 10+ employees)	7% (2015) ↑	19	4.9% (2014)	24	n.a.
4b1 SMEs Selling Online % SMEs (no financial sector, 10+ employees)	10% (2015) →	21	10% (2014)	20	16% (2015)
4b2 eCommerce Turnover % turnover of SMEs (no financial sector, 10-249 employees)	7.3% (2015) ↓	19	9.6% (2014)	9	9.4% (2015)
4b3 Selling Online Cross-border % SMEs (no financial sector, 10+ employees)	8.3% (2015) ↑	14	6.1% (2013)	15	7.5% (2015)

A true digital economy is one where businesses take full advantage of the possibilities and benefits offered by digital technologies, in order to improve their efficiency and productivity, as well as to reach costumers and realise sales. To that end, Cyprus is a comparatively average performer although it needs to improve in certain areas.

The adoption of digital technologies is an important driver of labour productivity growth and needs to be strengthened. The percentage of businesses using technologies such as electronic information sharing (ERP – 43%) and social media (30%) are above the EU average (36% and 18%, respectively). However, not many Cypriot businesses use RFID (3.1% in 2014), nor eInvoices (5.1%), nor cloud services (7%). Therefore, they need to become more digitized, which will result in efficiency and productivity gains.

Cypriot businesses need also to take advantage of the possibilities offered by on-line commerce. Very few SMEs in Cyprus sell online (10%) and even less sell online to other EU member states (8.3%). Those who do sell online make a small share of their turnover from those sales (7.4%) down from the previous year (9.6%) and lower than the EU average (9.4%).

5 Digital Public Services

5 Digital Public Services	Cyprus		Cluster score	EU score
	rank	score		
DESI 2016	19	0.47	0.45	0.55
DESI 2015	17	0.51	0.47	0.54

In Digital Public Services Cyprus scores 0.47 and ranks 19th among EU countries, signifying a moderate performance with a score decrease and a loss of two ranking positions compared to the previous year.

	Cyprus				EU DESI 2016 value
	DESI 2016		DESI 2015		
	value	rank	value	rank	
5a1 eGovernment Users % individuals returning filled forms, out of Internet users in the last year (aged 16-74)	24% (2015)	↓ 20	28% (2014)	18	32% (2015)
5a2 Pre-filled Forms Score (0 to 100)	60 (2015)	↓ 13	70 (2014)	7	49 (2015)
5a3 Online Service Completion Score (0 to 100)	73 (2015)	↑ 21	61 (2014)	22	81 (2015)
5a4 Open Data Score (0 to 700)	165 (2015)	↓ 25	265 (2014)	22	351 (2015)

Modern public services offered online in an efficient manner are a vehicle for efficiency gains for enterprises, citizens, and the public administration itself. Cyprus' Online Service Completion⁸ score places it among the low performers in the EU. Although last year its Pre-filled Forms⁹ score placed it among the highest ones (the 7th), this year it declined significantly (being now the 13th among EU countries). Therefore, a key challenge for the country is to improve the level of sophistication of certain services. Better online public services will also likely improve Cyprus' percentage of eGovernment users (24% of Internet users have exchanged filled forms with public authorities online, below the EU average of 32%).

⁸ 73/100 in the Online Service Completion indicator (measuring the extent to which the various steps in an interaction with the public administration – life event – can be performed completely online).

⁹ 60/100 in the Pre-filled Forms indicator (measuring the extent to which data that is already known to the public administration is pre-filled in the forms that are presented to the user)