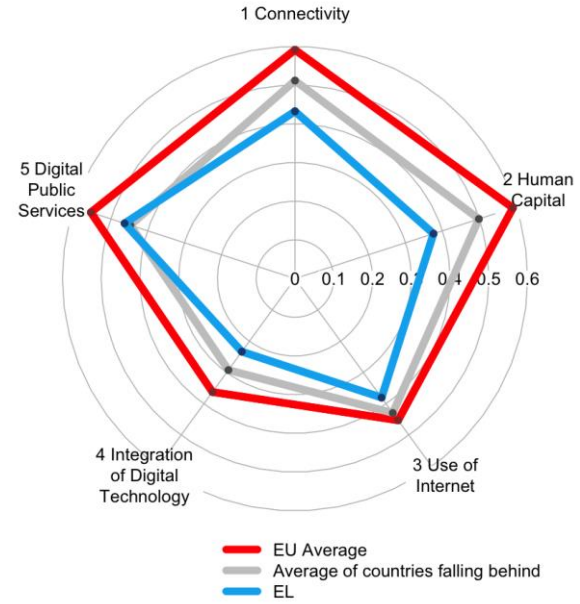
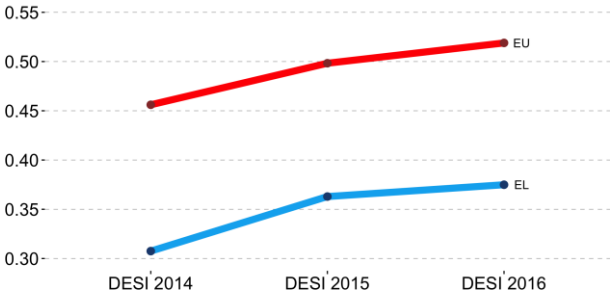
Digital Economy and Society Index[1] 2016[2]

Country Profile

Greece

Greece has an overall score[3] of **0.37** and ranks **26th** out of the 28 EU Member States. Relative to last year, Greece has progressed in terms of Connectivity; but despite 99% of Greek households being covered by fixed broadband, 34% do not yet subscribe to it. Greece lags behind on the demand side, with low levels of digital skills (only 63% are regular Internet users, while 30% have never used the Internet) and trust (most Greeks still do not shop online nor do they make online transactions). These seem to be holding back the development of its digital economy. Online public services are a key challenge for Greece, as it is among the last in the EU; it is positive to note, however, that 37% of Internet users have exchanged filled forms with the public administration online. Greece's score was lower than the EU average and over the last year, the score grew at a slower pace than the EU. As such, Greece is part of the **falling behind**[4] cluster of countries.





	Greece		Cluster	EU
	rank	score	score	score
DESI 2016	26	0.37	0.44	0.52
DESI 2015	26	0.36[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, Greece 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, Cyprus, Czech Republic, 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	Greece		Cluster score	EU score
	rank	Score		
DESI 2016	**26**	**0.43**	**0.51**	**0.59**
DESI 2015	25	0.42	0.5	0.57

In terms of connectivity, Greece has improved compared to the previous year but it still performs worse than most other EU countries. With an overall Connectivity score of 0.43 the country ranks 26th among EU countries. Despite the fact that 99% of Greek households are covered by fixed broadband, 34% of them do not yet subscribe to it. Moreover, Next Generation Access capable of providing high speed Internet (at least 30 Mbps download) is available to only 36% of homes, far below the EU average of 71%.

	Greece					EU
	DESI 2016			DESI 2015		DESI 2016
	value		rank	value	rank	value
1a1 Fixed BB Coverage % households	99% (Jun- 2015)	→	9	99% (Dec- 2014)	9	97% (Jun- 2015)
1a2 Fixed BB Take-up % households	66% (2015)	↑	18	63% (2014)	18	72% (2015)
1b1 Mobile BB Take-up Subscribers per 100 people	44 (June 2015)	↑	27	42 (Dec- 2014)	27	75 (Jun- 2015)
1b2 Spectrum % of the target for spectrum to be harmonised at EU level	71% (Dec- 2015)	↓	14	74% (Dec- 2014)	14	69% (Dec- 2015)
1c1 NGA Coverage % households, out of all households	36% (Jun- 2015)	↑	28	34% (Dec- 2014)	28	71% (Jun- 2015)
1c2 Subscriptions to Fast BB % of subscriptions >= 30Mbps, out of fixed BB subscriptions	4.2% (Jun- 2015)	↑	27	3.2% (Dec- 2014)	27	30% (Jun- 2015)
1d1 Fixed BB Price % individual gross income spent for the cheapest standalone Fixed Broadband subscription (lower values are better)	1.9% (Access cost: 2015; Income: 2014)	↑	21	1.8% (Access cost: 2014; Income: 2014)	20	1.3% (Access cost: 2015; Income: 2014)

Greece has two main challenges in Connectivity. First, it needs to increase the number of broadband subscribers, as only 66% of households subscribe to fixed broadband and there are only 44 mobile broadband subscriptions per 100 citizens, limiting Greece's ability to exploit the benefits of the digital economy. Second, it needs to improve coverage of fast networks, i.e. Next-generation Access (NGA) networks providing at least 30 Mbps. To date NGA coverage in Greece is only half of the average EU level. Likewise, subscriptions to fast broadband need to be improved since only 4.2% of fixed Internet subscriptions are to high-speed connections (30% in the EU).

Affordability could explain the low broadband take-up, since the standalone fixed broadband subscription in Greece costs as much as 1.9% of the average gross income per capita (1.3% in the EU)[6] and exhibits an increasing trend. Low take-up could also be attributed to the relatively low demand resulting from a lack of digital skills in the general population.

[6] Calculations performed taking into account the price of the least expensive standalone fixed broadband connection offering speeds between 12 Mbps and 30 Mbps.

2 Human Capital

2 Human Capital	Greece		Cluster	EU
	rank	score	score	score
DESI 2016	**26**	**0.38**	**0.5**	**0.59**
DESI 2015	26	0.33	0.48	0.58

With a Human Capital score of 0.38, Greece ranks 26th among EU countries, showing only mild improvement compared to the previous year (0.33).

	Greece					EU
	DESI 2016			DESI 2015		DESI 2016
	value		rank	value	rank	value
2a1 Internet Users % individuals (aged 16-74)	63% (2015)	↑	26	59% (2014)	26	76% (2015)
2a2 Basic Digital Skills % individuals (aged 16-74)	44% (2015)		23	n.a.	-	55% (2015)
2b1 ICT Specialists % employed individuals	1.3% (2014)	↓	28	1.6% (2013)	28	3.7% (2014)
2b2 STEM Graduates Graduates in STEM per 1000 individuals (aged 20 to 29)	16 (2013)	↑	16	14 (2012)	18	n.a.

In order to fully develop its digital economy and society, Greece needs to engage its citizens to use the Internet. Greece has one of the lowest levels of regular Internet users in the EU (63%), and 30% of the Greek population has never used the Internet (the EU average is 16.4%). This means that about one-third of the population cannot partake on the possibilities offered by the Internet, nor can they contribute to the digital economy.

Greece 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 44% of Greeks possess at least basic levels of digital skills can be an important barrier to the country's economic development. Finally, Greece has the lowest share of ICT specialists[7] in the workforce among all EU countries (1.3% in 2014).

Greece also performs worse than the EU average in terms of STEM (science, technology and mathematics) graduates, with 1.6% of Greeks aged 20-29 years old holding a STEM degree in 2013. 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	Greece		Cluster	EU
	rank	score	score	score
DESI 2016	**26**	**0.38**	**0.43**	**0.45**
DESI 2015	25	0.37	0.42	0.43

In terms of the propensity of individuals to use Internet services, Greece scores 0.38 (up from 0.37 last year) and ranks 26th among EU countries. Greeks appear to refrain most from using the Internet when they need to make transactions, as Greece lags behind both in online banking and online shopping.

	Greece				EU
	DESI 2016		DESI 2015		DESI 2016
	value	rank	value	rank	value
3a1 News % individuals who used Internet in the last 3 months (aged 16-74)	85% (2015) →	8	85% (2014)	8	68% (2015)
3a2 Music, Videos and Games % individuals who used Internet in the last 3 months (aged 16-74)	52% (2014)	14	52% (2014)	14	49% (2014)
3a3 Video on Demand % households that have a TV	7.8% (2014)	28	7.8% (2014)	28	41% (2014)
3b1 Video Calls % individuals who used Internet in the last 3 months (aged 16-74)	44% (2015) ↓	11	45% (2014)	11	37% (2015)
3b2 Social Networks % individuals who used Internet in the last 3 months (aged 16-74)	66% (2015) ↑	14	64% (2014)	13	63% (2015)
3c1 Banking % individuals who used Internet in the last 3 months (aged 16-74)	21% (2015) →	26	21% (2014)	26	57% (2015)
3c2 Shopping % individuals who used Internet in the last year (aged 16-74)	47% (2015) ↑	21	40% (2014)	21	65% (2015)

Greek Internet users engage in a broad range of online activities. They read news online (85%), listen to music, watch films and play games online (52% in 2014), and use the Internet to communicate via voice or video calls (44%) or through social networks (66%). For all of these activities, engagement among Greeks is higher than overall in the EU.

While Greeks 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 Greek Internet users that use online banking (21%) or shop online (47%) are much lower than the EU average (57% and 65%, respectively). This is the key challenge for Greece 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	Greece		Cluster	EU
	rank	score	score	score
DESI 2016	**24**	**0.23**	**0.29**	**0.36**
DESI 2015	22	0.26	0.31	0.33

Greece has its second best ranking of all the DESI 2015 dimensions in Integration of Digital Technology by businesses. It ranks 24th among the EU countries with a score of 0.23. Still, progress seems to have stagnated over the past year and Greece's businesses need to better exploit the possibilities offered by on-line commerce and cloud-based applications.

	Greece				EU
	DESI 2016		DESI 2015		DESI 2016
	value	rank	value	rank	value
4a1 Electronic Information Sharing % enterprises (no financial sector, 10+ employees)	37% (2015) ↓	12	40% (2014)	7	36% (2015)
4a2 RFID % enterprises (no financial sector, 10+ employees)	2.6% (2014)	26	2.6% (2014)	26	3.8% (2014)
4a3 Social Media % enterprises (no financial sector, 10+ employees)	18% (2015) ↑	11	17% (2014)	11	18% (2015)
4a4 eInvoices % enterprises (no financial sector, 10+ employees)	4.1% (2015)	28	n.a.	-	n.a.
4a5 Cloud % enterprises (no financial sector, 10+ employees)	6.5% (2015) ↑	21	4.7% (2014)	25	n.a.
4b1 SMEs Selling Online % SMEs (no financial sector, 10+ employees)	6.1% (2015) ↓	27	9.1% (2014)	23	16% (2015)
4b2 eCommerce Turnover % turnover of SMEs (no financial sector, 10-249 employees)	1.2% (2015)	28	n.a.	-	9.4% (2015)
4b3 Selling Online Cross-border % SMEs (no financial sector, 10+ employees)	3.4% (2015) ↓	26	4.3% (2013)	22	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, Greece is a moderate performer and certain improvements are necessary.

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 – 37%) and social media (18%) is nearly equal to the EU average (36% and 18%, respectively). However, not many Greek businesses use RFID (2.6% in 2014), eInvoices (4.1%), or cloud services (6.5%). Greek businesses need to improve their digitization in order to attain further efficiency and productivity gains.

Greek businesses need also to take advantage of the possibilities offered by on-line commerce. Very few SMEs in Greece sell online (6.1%) and even less sell online to other EU member states (3.4%). In both cases the figures have fallen compared to the previous year.

5 Digital Public Services

5 Digital Public Services	Greece		Cluster	EU
	rank	score	score	score
DESI 2016	**20**	**0.46**	**0.45**	**0.55**
DESI 2015	21	0.44	0.47	0.54

Digital Public Services is the DESI dimension, where Greece scores best. Its ranking has slightly improved compared to the previous year. However, Greece performs worse than the EU average in two digital public services indicators, namely the pre-filled forms and online service completion indicators.

	Greece					EU
	DESI 2015			DESI 2014		DESI 2015
	value		rank	value	rank	value
5a1 eGovernment Users % individuals returning filled forms, out of Internet users in the last year (aged 16-74)	37% (2015)	↓	12	38% (2014)	11	32% (2015)
5a2 Pre-filled Forms Score (0 to 100)	8.1 (2015)	↑	27	7.3 (2014)	26	49 (2015)
5a3 Online Service Completion Score (0 to 100)	54 (2015)	↑	27	48 (2014)	26	81 (2015)
5a4 Open Data Score (0 to 700)	520 (2015)	↑	3	500 (2014)	6	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. Greece faces a key challenge in online public services. Its indicator scores[8] place it among the last in the EU and show that the level of sophistication of its services needs to improve significantly. Despite this, Greece manages to score above the EU in the percentage of Internet users that have exchanged filled forms with the public administration online (37%).

[8] 8.1/100 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), and of 54/100 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).