

Brussels, 12 May 2017 (OR. en)

9139/17 ADD 14

TELECOM 118 MI 412 IND 123 COMPET 342 PI 58 RECH 137 DIGIT 135

COVER NOTE

| From: | Secretary-General of the European Commission, signed by Mr Jordi AYET PUIGARNAU, Director |
|------------------|---|
| date of receipt: | 11 May 2017 |
| To: | Mr Jeppe TRANHOLM-MIKKELSEN, Secretary-General of the Council of the European Union |
| No. Cion doc.: | SWD(2017) 160 final - PART 15/62 |
| Subject: | COMMISSION STAFF WORKING DOCUMENT Europe's Digital Progress Report 2017 |

Delegations will find attached document SWD(2017) 160 final - PART 15/62.

Encl.: SWD(2017) 160 final - PART 15/62

9139/17 ADD 14 CB/ek
DG E 2B EN



Brussels, 10.5.2017 SWD(2017) 160 final

PART 15/62

COMMISSION STAFF WORKING DOCUMENT

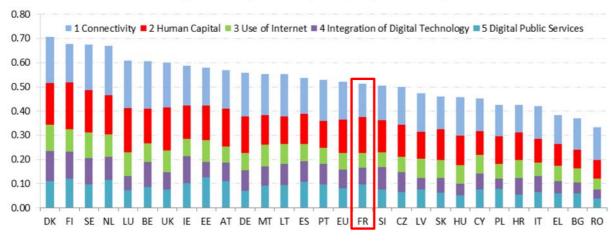
Europe's Digital Progress Report 2017

Europe's Digital Progress Report (EDPR) 2017 Country Profile France

Europe's Digital Progress Report (EDPR) tracks the progress made by Member States in terms of their digitisation, combining quantitative evidence from the Digital Economy and Society Index (DESI)¹ with qualitative information on country-specific policies. It is structured around five chapters:

| 1 Connectivity | Fixed broadband, mobile broadband, broadband speed and prices |
|-------------------------------------|---|
| 2 Human Capital | Internet use, basic and advanced digital skills |
| 3 Use of Internet | Citizens' use of content, communication and online transactions |
| 4 Integration of Digital Technology | Business digitisation and eCommerce |
| 5 Digital Public Services | eGovernment |

Digital Economy and Society Index (DESI) 2017 ranking



| | Fra | nce | Cluster | EU |
|------------------------|------|-------|---------|-------|
| | rank | score | score | score |
| DESI 2017 | 16 | 0.51 | 0.54 | 0.52 |
| DESI 2016 ² | 16 | 0.48 | 0.51 | 0.49 |

¹ https://ec.europa.eu/digital-single-market/en/desi

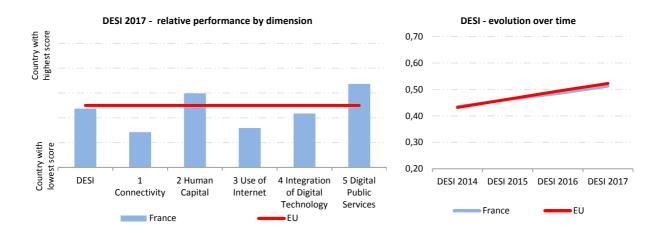
Europe's Digital Progress Report (EDPR) 2017, Country Profile France

² The DESI 2016 was re-calculated for all countries to reflect slight changes in the choice of indicators and corrections to the underlying indicator data. As a result, country scores and rankings may have changed from the previous publication. For further information please consult the DESI methodological note at http://ec.europa.eu/information_society/newsroom/cf/dae/document.cfm?action=display&doc_id=8846.

France ranks 16th out of the 28 EU Member States. Overall, it retains its ranking with some slight improvements to its score. France has achieved good results in numerical skills, both basic and advanced, in particular because of a very high proportion of scientific and technical graduates (2nd rank). France also performs well in terms of e-government (use and services offered online) and of open data. However, France has a level of connectivity that is below the European average, in particular because of a low degree of coverage for the 4G mobile band and for fast broadband. Furthermore, companies in France have a below average degree of integration of digital technologies (electronic invoicing, cloud); they score low on electronic identification. In terms of e-commerce, France occupies an average position. Finally, France is lagging behind in the use of the Internet, both in terms of content (news, music and video) and communication (social networks); even if online transactions (banking, shopping) are widely practised.

France belongs to the Medium performing cluster of countries.³

In 2015, France adopted its government digital strategy "The Digital Republic in Action."4



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³ Medium performing countries are Latvia, Czech Republic, Slovenia, France, Portugal, Spain, Lithuania, Malta, Germany and Austria.

⁴ http://www.gouvernement.fr/la-republique-numerique-en-actes

1 Connectivity

| 1 Connectivity | | Fra | ance | Cluster | EU | |
|----------------|----------------|------|-------|---------|-------|--|
| | 1 connectivity | rank | score | score | score | |
| | DESI 2017 | 20 | 0.55 | 0.63 | 0.63 | |
| | DESI 2016 | 20 | 0.53 | 0.60 | 0.59 | |

| | France | | | | | EU |
|--|----------------------------|----------|------|----------------------------|-----------|----------------------------|
| | DESI 2 | 2017 | _ | DESI 20: | DESI 2017 | |
| | value | | rank | value | rank | value |
| 1a1 Fixed Broadband Coverage | 99.95% | 1 | 6 | 99.76% | 8 | 98% |
| % households | 2016 | | | 2015 | | 2016 |
| 1a2 Fixed Broadband Take-up | 72% | 1 | 11 | 71% | 12 | 74% |
| % households | 2016 | | | 2015 | | 2016 |
| 1b1 Mobile Broadband Take-up | 81 | 1 | 14 | 73 | 11 | 84 |
| Subscriptions per 100 people | June 2016 | | | June 2015 | | June 2016 |
| 1b2 4G coverage ⁵ | 69% | | 24 | NA | | 84% |
| % households (average of operators) | 2016 | | | | | 2016 |
| 1b3 Spectrum ⁶ | 63% | 1 | 20 | 61% | 21 | 68% |
| % of the target | 2016 | | | 2015 | | 2016 |
| 1c1 NGA Coverage | 47% | 1 | 27 | 45% | 26 | 76% |
| % households | 2016 | | | 2015 | | 2016 |
| 1c2 Subscriptions to Fast Broadband | 18% | 1 | 24 | 15% | 23 | 37% |
| % subscriptions >= 30Mbps | June 2016 | | | June 2015 | | June 2016 |
| 1d1 Fixed Broadband Price ⁷ | 1.1% | 4 | 11 | 0.9% | 7 | 1.2% |
| % income | price 2016, income 2015 | | | price 2015, income 2015 | | price 2016, income 2015 |

With an overall connectivity score of 0.55, France ranks 20th among the EU Member States. French households are fully covered (100 % coverage) by fixed broadband and 72 % of them subscribe to fixed broadband (slightly below the EU average of 74 %). The situation as regards higher performance networks is more complex: only 47 % of French households have NGA coverage (Next Generation Access or fast broadband networks providing at least 30 Mbps); and only 18 % of French households with a subscription to fixed broadband actually chose the fast broadband option. These figures are lower than the EU averages of 76 % for NGA coverage and 37 % for subscription to fast broadband respectively. However, significant annual growth has been recorded by the national regulator, ARCEP.

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⁵ This is a new DESI indicator measuring the average coverage of telecom operators' 4G networks.

⁶ .There is a decrease in most of the Member States due to the additional EU harmonisation of the 700 MHz band in April 2016.

⁷ Due to a slight methodological change, historical data was re-calculated.

Take-up of mobile broadband has markedly improved from 73 to 81 subscriptions per 100 subscribers within a year (June 2015-June 2016), although it is still slightly below the EU average of 84 %.

In order to improve high speed broadband coverage, the French government adopted the *Plan France Très Haut Débit* scheme in 2013 and set up the *Mission Très Haut Débit* to monitor the implementation of the scheme. The overall objective of the scheme is to achieve high speed broadband coverage (at or above 30 Mbps) throughout the whole country by 2022.

France needs to make progress with its high speed broadband (>= 30Mbps) environment, where it ranks 24th out of 28 in the EU, limiting France's ability to exploit the benefits of the digital economy. In this regard, France is deploying a number of policy and regulatory measures, in conjunction with the *Plan France très haut débit* scheme, to ensure widespread deployment, throughout a large territory with low rural population densities, of very high capacity networks capable of meeting future connectivity needs. The timely execution of its broadband scheme should generate positive results on that front.

2 Human Capital

| 2 Human Capital | Fra | ance | Cluster | EU | |
|-----------------|------------|------|---------|-------|--|
| =aa Capitai | rank score | | score | score | |
| DESI 2017 | 9 | 0.59 | 0.57 | 0.55 | |
| DESI 2016 | 10 | 0.57 | 0.55 | 0.53 | |

| | France | | | | | EU |
|-----------------------------------|--------|---------------|------|--------|-----------|-------|
| | DE | ESI 20 | 17 | DESI 2 | DESI 2017 | |
| | valu | e | rank | value | rank | value |
| 2a1 Internet Users | 82% | 1 | 10 | 81% | 10 | 79% |
| % individuals | 2016 | | | 2015 | | 2016 |
| 2a2 At Least Basic Digital Skills | 56% | \downarrow | 11 | 57% | 12 | 56% |
| % individuals | 2016 | | | 2015 | | 2016 |
| 2b1 ICT Specialists ⁸ | 3.6% | 1 | 13 | 3.2% | 16 | 3.5% |
| % employed individuals | 2015 | | | 2014 | | 2015 |
| 2b2 STEM Graduates | 23 | \rightarrow | 2 | 23 | 2 | 19 |
| Per 1000 individuals (aged 20-29) | 2014 | | | 2013 | | 2014 |

In the Human Capital dimension, France is performing well (9th rank in DESI 2017) and is making progress (up from the 10th rank in DESI 2016). French people are regular Internet users (82 % of individuals aged 16-74 consult the Internet at least once a week) and they have good digital skills (56 % of individuals aged 16-74 have at least basic digital skills). The particularly high proportion of graduates in science and technology (23 graduates per 1000 inhabitants aged 20-29 years, 2nd in the EU) might contribute to the generally high level of numerical skills and the high use of the Internet. However, French companies face difficulties recruiting ICT specialists (43 % of companies with more than 10 employees outside the financial sector which have tried to recruit ICT specialists reported difficulties in filling job vacancies). Nevertheless, France is close to the EU average (41 % reported the same problems in 2016).

The digital strategy of the government "The Digital Republic in Action" encompasses two measures in favour of the development of digital skills.

With funding of EUR 1 billion over three years, the "Digital Education Plan" aims to improve the efficiency of the school system and to give pupils the essential digital skills. 200 schools and 300 "collèges" (lower secondary education) implemented the plan from the beginning of the school year 2015.

The *Grande Ecole du Numérique* is a network of public and private training centres offering short-term (6 months) to long-term (2 years) digital training courses without any prerequisite qualification. At the end of 2016, 171 training courses were certified for a total of 4000 apprentices (target 10000 apprentices).

⁸ Historical data have been revised by Eurostat.

| rance has not yet her "national coalition for digital skills and jobs"; but with the launch of the ew European "digital skills and jobs coalition" on 1 st December 2016, France plans to set up coalition. | | | | | | | |
|--|--------------|--|--|--|--|--|--|
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| Europe's Digital Progress Report (EDPR) 2017, Country Profile France | Page 6 of 11 | | | | | | |

3 Use of Internet

| 3 Use of Internet | | Fra | nce | Cluster | EU | |
|-------------------|-----------|------|-------|---------|-------|--|
| | | rank | score | score | score | |
| | DESI 2017 | 25 | 0.40 | 0.45 | 0.48 | |
| | DESI 2016 | 25 | 0.37 | 0.42 | 0.45 | |

| | France | | | | EU | |
|--|--------|---------------|------|------------------|------|-----------|
| | D | ESI 20 |)17 | DESI 2016 | | DESI 2017 |
| | valu | ie | rank | Value | rank | value |
| 3a1 News | 56% | 1 | 27 | 50% | 27 | 70% |
| % individuals who used Internet in the last 3 months | 2016 | | | 2015 | | 2016 |
| 3a2 Music, Videos and Games ⁹ | 75% | | 21 | NA | | 78% |
| % individuals who used Internet in the last 3 months | 2016 | | | | | 2016 |
| 3a3 Video on Demand ¹⁰ | 12% | | 18 | NA | | 21% |
| % individuals who used Internet in the last 3 months | 2016 | | | | | 2016 |
| 3b1 Video Calls | 34% | 1 | 25 | 30% | 26 | 39% |
| % individuals who used Internet in the last 3 months | 2016 | | | 2015 | | 2016 |
| 3b2 Social Networks | 47% | 1 | 28 | 45% | 28 | 63% |
| % individuals who used Internet in the last 3 months | 2016 | | | 2015 | | 2016 |
| 3c1 Banking | 69% | \rightarrow | 10 | 69% | 9 | 59% |
| % individuals who used Internet in the last 3 months | 2016 | | | 2015 | | 2016 |
| 3c2 Shopping | 75% | 1 | 7 | 74% | 8 | 66% |
| % internet users (last year) | 2016 | | | 2015 | | 2016 |

Internet usage is the dimension in which France has the lowest ranking (25th place in DESI 2017 and 2016). In terms of content, among internet users in the last three months, only 56 % (27th rank) read an online newspaper or magazine; 75 % (21st rank) play or download a game, movie, or music; and 12 % (18th rank) watch a video on demand. Moreover, in terms of communication, among internet users in the last three months, 34 % (25th rank) made a phone or video (via webcam) call over the Internet; 47 % (28th, bottom place) participate in a social network. However, in terms of online transactions, France is above average: 69 % (10th rank) of Internet users in the last three months used online banking, and 75 % (7th rank) of Internet users in the past year ordered goods or services online.

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⁹ Break in series due to a change in the Eurostat survey.

 $^{^{10}}$ Break in series due to a change of data source. New source is Eurostat.

4 Integration of Digital Technology

| 4 Integration of Di | gital Fr | ance | Cluster | EU |
|---------------------|----------|------------|---------|-------|
| Technology | rank | rank score | | score |
| DESI 2017 | 16 | 0.35 | 0.40 | 0.37 |
| DESI 2016 | 18 | 0.32 | 0.37 | 0.35 |

| | France | | | | | EU |
|------------------------------------|--------|---------------|------|--------|------|-----------|
| | DES | SI 201 | .7 | DESI 2 | 016 | DESI 2017 |
| | value | ! | rank | value | rank | value |
| 4a1 Electronic Information Sharing | 39% | | 10 | 39% | 10 | 36% |
| % enterprises | 2015 | | | 2015 | | 2015 |
| 4a2 RFID | 2.7% | | 24 | 2.7% | 24 | 3.9% |
| % enterprises | 2014 | | | 2014 | | 2014 |
| 4a3 Social Media | 14% | 1 | 20 | 12% | 20 | 20% |
| % enterprises | 2016 | | | 2015 | | 2016 |
| 4a4 elnvoices | 15% | | 16 | NA | | 18% |
| % enterprises | 2016 | | | 2015 | | 2016 |
| 4a5 Cloud | 12% | | 16 | NA | | 13% |
| % enterprises | 2016 | | | 2015 | | 2016 |
| 4b1 SMEs Selling Online | 16% | \rightarrow | 15 | 16% | 13 | 17% |
| % SMEs | 2016 | | | 2015 | | 2016 |
| 4b2 eCommerce Turnover | 10.3% | \downarrow | 10 | 10.6% | 9 | 9.4% |
| % SME turnover | 2016 | | | 2015 | | 2016 |
| 4b3 Selling Online Cross-border | 7.9% | | 15 | 7.9% | 15 | 7.5% |
| % SMEs | 2015 | | | 2015 | | 2015 |

In terms of the integration of digital technologies by companies, France is below average in rank (16th place in DESI 2017), but it is progressing in both rank and score (18th place and 0.32 in DESI 2016). In terms of business online, 39 % of companies with more than 10 employees outside the financial sector share information internally using Enterprise Resource Planning (ERP) software, which places France above the European average (10th rank in DESI 2017). However, companies use little social media (20th rank), electronic invoicing (16th rank) and cloud computing (16th rank). In addition, France has an average position in terms of e-commerce; among SMEs outside the financial sector, 16 % sell online (15th rank in DESI 2017) and 7.9 % sell online cross-border (15th rank in DESI 2017).

The policies implemented by the French government in the field of e-business are structured around 3 main pillars. First, to raise awareness of digital technologies, the "Digital transition" programme involves 800 digital advisors by end 2016, from the chambers of commerce and the semi-public sector. Second, to guide entrepreneurs in their digital transition, the "Digital transition" programme offers training for entrepreneurs in the use of new digital tools. Third, the government proposes incentives for digital investments in the form of "Digital loans", within the framework of the investment programme for the future, for a total amount of EUR 300 million of subsidized loans granted by the Public Investment Bank (BPI).

The "Industry of the Future" initiative, part of the "New face of Industry in France" programme, was presented by the Minister of Economy on 18th May 2015. It aims to

accelerate the modernisation of production tools and to transform the industry by relying on digital technologies. "Industry of the future" is a transversal programme which consists of 5 axes: technology, transformation, training, cooperation and promotion. The "industry of the future alliance" is the governing body composed of representatives of industrial players, research centres, trade unions and professional organizations. Its objective is to support 3400 SMEs and mid-market companies (*Entreprises de Taille Intermédiaire* (ETI), 250-4999 persons employed) by the end of 2016 (target: 4300 by the end of 2017).

The "Industrial sector strategy" led to the signing of 14 sector contracts, one of which is dedicated to digital technology, signed in July 2013. This sector contract is structured around seven axes: the sector strategy to be defined will concern companies, training, export, regional planning and other related issues.

Today more than ever, if a company is not "technophile", it will be disadvantaged on a daily basis. In order to cope with the lagging position of the French economy, public authorities must incentivise a rapid catch-up that will remedy French companies' poor integration of digital technologies into their operations.

Highlight 2017¹¹: French Tech¹²

French Tech is an initiative launched by the French government to promote French startups in France and abroad. It has several components.

The promotional labelling of "French Tech Metropolis" concerns 13 metropolises in France in the provinces. Paris as a world class metropolis is outside this classification. In addition, startups are also grouped into thematic networks throughout the country. Finally, networks of French startups abroad have been labelled as "French Tech Hubs" in 22 cities around the world.

In addition to this, the French Tech initiative also includes a French Tech Acceleration Fund managed by BPI France for equity investments with an endowment of EUR 200 million.

Finally, French Tech awards grants of between EUR 10 000 and EUR 30 000 as seed money.

French Tech was the first European delegation and the 2nd world delegation (behind the USA) with 190 startups at the Consumer Electronic Show (CES) in Las Vegas in 2016.

http://www.francedigitale.org/evenement/tourdefrancedigitale2016/#event-Evenement 12 http://www.lafrenchtech.com/

Europe's Digital Progress Report (EDPR) 2017, Country Profile France

¹¹ Highlight 2016 was: "Tour de France digital", a contest organised by "France Digitale," a French public interest association that brings together digital entrepreneurs and investors, including venture capitalists and business angels, in order to promote the digital economy in association with public authorities. In 2016, "France Digitale" set out to identify the best startups in the digital domain and to award its annual prize to this year's digital economy champion in various cities (Montpellier, Rennes, Grenoble, Aix-en-Provence and Lille). The Top 10 startups will be selected by investors at national level and announced on 7th June 2016. They will participate in the Grande Finale on 30th June 2016 in Paris. 5 investors and Bpifrance (Public Bank of Investment) will award €1.5 million to the winner. More information on:

¹³ Within the framework of the "French Tech" program, the cities that are awarded a label are called "Métropoles French Tech" in French.

5 Digital Public Services

| 5 Digital Public Services | Fra | ance | Cluster | EU |
|---------------------------|------|-------|---------|-------|
| | rank | score | score | score |
| DESI 2017 | 9 | 0.65 | 0.59 | 0.55 |
| DESI 2016 | 9 | 0.60 | 0.56 | 0.51 |

| | France | | | | | EU |
|-------------------------------|-----------|---------------|------|-----------|------|-----------|
| | DESI 2017 | | | DESI 2016 | | DESI 2017 |
| | valu | e | rank | value | rank | value |
| 5a1 eGovernment Users | 56% | 1 | 6 | 48% | 7 | 34% |
| % internet users (last year) | 2016 | | | 2015 | | 2016 |
| 5a2 Pre-filled Forms | 27 | \rightarrow | 22 | 27 | 20 | 49 |
| Score (0 to 100) | 2016 | | | 2015 | | 2016 |
| 5a3 Online Service Completion | 86 | \rightarrow | 13 | 86 | 12 | 82 |
| Score (0 to 100) | 2016 | | | 2015 | | 2016 |
| 5a4 Open Data ¹⁴ | 86% | 1 | 2 | 76% | 2 | 59% |
| % of maximum score | 2016 | | | 2015 | | 2016 |

In terms of e-government, France is above average (9th rank in DESI 2017, unchanged since last year). More than half (56 % in 2016) of individuals send forms via the Internet to public authorities, placing France in the 6th rank. In addition, according to the Euro Data Portal composite indicator, France ranks second in Europe for open data, with a score of 1150 or 86 % of the maximum score, thanks to good performance both in terms of readiness, usability and impact. On the other hand, according to the results of the e-government benchmark, France has an average position in terms of completion of online services (13th place in DESI 2017) and a laggard position (22nd place in DESI 2017) in terms of the amount of pre-filled data in the online forms.

The official portal of the administrative *procedures service-public.fr* was merged with the site *mon.service-public.fr* in 2016 (estimate of 375 million visits in 2016).

The law "For a Digital Republic", introduced as a result of the government digital strategy, aims to promote the circulation of data, to work for the protection of individuals in digital society and to ensure digital access for all. The law was co-written with citizens before it was adopted by Parliament in 2016. The President of the Republic promulgated the law on 7th October 2016.

France Connect, the Single-Sign-On (SSO) system of French administrations, became available country-wide in 2016. It is the first component of the State Platform Strategy. France Connect complies with the requirements of the eIDAS European regulation (EU/910/2014 23rd July 2014). This tool also includes a data sharing component between the administrations to be set up in 2017.

¹⁴ Change of data source. The historical data have also been restated. The new source is the European Data Portal

Electronic invoicing will become mandatory for all public bodies between 2017 and 2020; recall that the e-Invoicing directive 2014/55/EU makes electronic invoicing progressively compulsory in the public sector. The "Chorus Pro" web portal was officially launched in September 2016. During the experimental phase, 18 public entities - local authorities, public institutions - piloted the system until its national roll-out on 1st January 2017. The overall target volume is close to 100 million invoices per year.

France does not yet have a "digital by default" strategy but it would greatly benefit if it adopted one. In its report on digital inclusion published in 2013, the National Digital Council (CNN) takes the example of the United Kingdom. The British administration redesigned its websites on the basis of 10 principles. More than 2000 websites are involved. The government estimates that this will save more than EUR 2 billion.