Digital Public Services
The Digital Economy and Society Index (DESI) is a composite index that summarises relevant indicators on Europe’s digital performance and tracks the progress of EU Member States in digital competitiveness.

Finland, Sweden, the Netherlands and Denmark, have the most advanced digital economies in the EU followed by the UK, Luxembourg, Ireland and Estonia.

Bulgaria, Romania, Greece and Poland have the lowest scores on the index.

The five dimensions of the DESI

1 Connectivity
   Fixed broadband, mobile broadband, fast and ultrafast broadband and prices

2 Human capital
   Internet user skills and advanced skills

3 Use of internet
   Citizens’ use of internet services and online transactions

4 Integration of digital technology
   Business digitisation and e-commerce

5 Digital public services
   e-Government and e-health

Digital Economy and Society Index (DESI) 2019

Source: DESI 2019, European Commission
In digital public services, Finland has the highest score, followed by Estonia, the Netherlands and Spain. Romania, Greece and Hungary and have the lowest scores.

The digital public services dimension consists of eight indicators: the eGovernment users measured as a percentage of those internet users who need to submit forms to the public administration (the e-government users indicator); the extent to which data that is already known to the public administration is pre-filled in forms presented to the user (the pre-filled forms indicator); the extent to which the various steps in dealing with the public administration can be carried out completely online (the online service completion indicator); the degree to which public services for businesses are interoperable and cross-border (the digital public services for businesses indicator); the government’s commitment to open data (the open data indicator); the percentage of people who used online health and care services without having to go to a hospital or doctors surgery (the e-health services indicator); the extent to which general practitioners are using electronic networks to exchange medical data with other healthcare providers and professionals (the medical data exchange indicator); and the extent to which general practitioners are using electronic networks to transfer prescriptions to pharmacists (the e-prescription indicator).

### Digital Public Services indicators in DESI 2019

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>5a1 e-Government users</strong></td>
<td>64%</td>
<td>2018</td>
</tr>
<tr>
<td>% internet users needing to submit forms</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>5a2 Pre-filled forms</strong></td>
<td>58</td>
<td>2018</td>
</tr>
<tr>
<td>Score (0 to 100)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>5a3 Online service completion</strong></td>
<td>87</td>
<td>2018</td>
</tr>
<tr>
<td>Score (0 to 100)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>5a4 Digital public services for businesses</strong></td>
<td>85</td>
<td>2018</td>
</tr>
<tr>
<td>Score (0 to 100) - including domestic and cross-border</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>5a5 Open data</strong></td>
<td>64%</td>
<td>2018</td>
</tr>
<tr>
<td>% of maximum score</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>5b1 e-Health services</strong></td>
<td>18%</td>
<td>2017</td>
</tr>
<tr>
<td>% individuals</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>5b2 Medical data exchange</strong></td>
<td>43%</td>
<td>2018</td>
</tr>
<tr>
<td>% of general practitioners</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>5b3 e-Prescription</strong></td>
<td>50%</td>
<td>2018</td>
</tr>
<tr>
<td>% of general practitioners</td>
<td></td>
<td></td>
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</table>
The demand side of digital public services is progressing, as 64 % of EU citizens used public services online.

e-Services reduce the time spent in public administrations and this encourages people to use them. Sweden, Estonia, Finland and Denmark performed very well, with more than 90 % of internet users (aged 16-74), who need to submit filled forms to the public administration, choosing governmental portals. Only Italy and Greece perform below 40 %.

24 countries performed better in 2018 than in 2017, with Portugal and Czechia making the biggest improvement with 18 and 15 percentage points respectively. In 2018, the number of e-government users increased by 10 %, which is the greatest recorded change since the DESI started. Compared to recent years, the upward trend from 2015 to 2017 stopped in 2017 with a fall of 1 percentage point.

DESI Report 2019 – Digital Public Services
The provision of government services online is progressing, with several Member States recording big improvements.

Online service completion refers to the extent to which the various steps needed in dealing with the public administration can be done completely online.

Malta, Portugal, Estonia, Austria, and Lithuania performed the best, retaining the same ranking they achieved in 2017. Altogether 13 countries (Malta, Portugal, Estonia, Austria, Lithuania, Finland, Denmark, Spain, Latvia, the Netherlands, Sweden, Italy, and France) scored above 90 points. Croatia, Romania and Bulgaria had low scores, while only two Member States (Spain and Ireland) had slightly declined compared to 2017. Hungary is the country with the greatest increase compared to 2017, followed by Luxembourg and Greece.

The use of inter-connected registers is key to assure that users do not have to resubmit data to the public administration.

Although all the countries improved compared to 2017, the amount of data available in public services' online forms (pre-filled forms) is still not satisfactory. Only four countries (i.e. Romania, Cyprus, Denmark and Finland) recorded lower scores compared to 2017. Ireland (+27.5 points), Italy (+15.75 points) and Latvia (+11.38 points) made the most progress. The three best performing countries were Malta, Estonia, and Latvia with scores above 82 points. However, the worst performing countries (i.e. Romania, the UK, Greece and Bulgaria) scored below 30 points.
The provision of digital public services for businesses is improving, having increased by more than 25% in the last 5 years.

This indicator measures the degree to which basic public services for businesses, when starting a business and conducting regular business operations, are available online and cross borders to other EU Member States. Services provided through a portal receive a higher score, while services that only provide information online but the operations of which have to be done offline receive a lower score.

Altogether 11 countries (Denmark, Ireland, the UK, Lithuania, Bulgaria, Malta Spain, Estonia, Sweden, Latvia and Cyprus) scored more than 90 points (out of 100). Bulgaria and the UK recorded the greatest improvement compared to 2017. On the other hand, Croatia, Romania and Bulgaria scored below 75, while Germany recorded a drop of more than 4 points.
Open data: The overall results across the EU show the variety in the speed of transformation and the priorities that countries have set.

As from 2018, the level of maturity of open data is based on the four following indicators:

I. Open data policy: the presence at national level of specific policies on open data, licensing norms, and the extent of coordination at national level to provide guidelines to national, local and regional administrations, and set up coordinated approaches towards data publication.

II. Open data portals: the development of national portals and their level of sophistication to feature available open data.

III. Open data impact: the impact of open data at country level on four dimensions: political, social, environmental and economic.

IV. Open data quality: the extent to which national portals have a systematic and automated approach to harvesting and the compliance level in terms of the metadata standard DCAT-AP (specification for metadata records).

The less advanced open data countries choose to take what they deem to be the natural next step and invest in modernising their national portals so they become the main gateways to open data available throughout the country. The more ‘mature’ open data countries have now shifted to boosting the quality of data publication. The top performing countries are now prioritising the impact derived from open data and carry out activities to monitor and capture this impact.

Ireland, Spain and France performed well, having scored more than 80%. On the other hand, Malta, Denmark, Estonia and Lithuania underperformed, having scored less than 50%.

* The methodology was updated to enforce the metadata quality and impact, therefore there is a break in the series compared to past years.
** Hungary did not participate in the exercise for 2018.
Can businesses and the public quickly and easily access public information and services? Public administrations score 84 (out of 100) points in user centricity.

This indicator includes three key elements of online service provision:

I. Online availability: this illustrates how services are made available (automated; service available online through a portal or directly; information on the service is available either through a portal or online; the service or any information about the service is not online available).

II. Usability: this measures the availability of support channels and feedback mechanisms, such as online chats.

III. Mobile friendliness: this captures the extent to which government services are available through mobile devices, providing seamless and convenient mobile experience to the public and businesses.

Member States are improving, having an overall score of 84 (out of 100) which keeps growing. Over the last five years, online availability has risen by 15 points, broadening the online scope of public services. Moreover, an initial gap of 64 points between the top and bottom five performing countries of 64 points has decreased by 12 points over the last five years. Encouragingly, public sector services are also increasingly mobile-friendly, allowing users to find information and obtain services anytime and anywhere.

Malta, Finland and the Netherlands are leading in the EU, scoring more than 90 points, while Romania, Croatia and Hungary are lagging behind, scoring less than 70 points.
In the last 5 years, Member States increased the use of key enablers by 10%.

The key enabler indicator includes the following four key elements of online service provision and availability:

I. Electronic Identification (eID) is a government-issued document for online identification and authentication.

II. eDocuments: a document that has been authenticated by its issuer using any means recognised under applicable national law, specifically through the use of electronic signatures, i.e. not a regular pdf or word doc.

III. Authentic sources: base registries used by governments to automatically validate or fetch data related to individuals or businesses.

IV. Digital post: assesses whether public authorities allow people to receive communications digitally only, and hence reducing paper mailings. Digital post refers to the possibility for governments to communicate by electronic means only with people or entrepreneurs, such as through personal mailboxes.

Member States have ample room to improve the implementation of key enablers in their service provisions. For example, public administrations could optimise the reuse of (personal) information already provided by users. In effect, the authentic source indicator stands at 56 (out of 100). However, countries substantially differ; eID stands at 55, while digital post options are available in 65 out of 100 institutions. eDocuments stands at 65 (out of 100) as well.

Malta, Estonia, Lithuania, Austria, Latvia and Denmark are leading, scoring more than 80 points, while Romania, Croatia and Bulgaria and Greece are lagging behind, scoring less than 30 points.
Digital health and care: more than half of the people in the EU want online access to their medical records.

Only 18% of people in the EU have used online health and care services without having to go to a hospital or a doctor’s surgery (for example, by getting a prescription or a consultation online). 5% have used these "once", 6% "twice" and 7% "three times or more". The majority (81%) have "never" used these services.

According to Eurobarometer, 52% of all people in the EU would like online access to their medical and health records. People in the EU are much more willing to share data on their health and wellbeing with doctors and healthcare professionals (65%) than with companies (14%) or with public authorities even if anonymised and for research purposes (21%). One in twenty (5%) would be willing to give their anonymised data to private sector companies for commercial purposes. Less than one in five people in the EU have used health and care services provided online (18%). Overall, seven in ten (70%) would be willing to give their health and personal wellbeing data to others. Most likely they are willing to do this for their doctor or health care professional (65%).

Almost 50% of people in Finland and Estonia used e-health services, while in Denmark the percentage is slightly lower (42%). On the other hand, Malta Hungary, Germany and Cyprus underperformed, having scored less than 10%.

**Use of e-health Services, 2017 (% of individuals aged 16-74)**

Source: Eurobarometer, Special Eurobarometer 460: Attitudes towards the impact of digitisation and automation on daily life, 2017
Almost half of general practitioners used electronic means to exchange medical data and prescribe medicines.

More than 40% of general practitioners used electronic networks to exchange medical data with other healthcare providers and professionals.

One of the bottlenecks that prevents general practitioners from exchanging patients’ data are the compatibility problems that might be encountered with the systems.

Denmark ranked first, having scored 98%, with Sweden following (81%). Altogether 10 countries scored over 43%. The rest had a much worse performance, with Slovakia, Cyprus, Poland, Czechia and Romania having scored below 20%.

The use of electronic prescriptions has been introduced to improve health care in the EU. So far, half of general practitioners have used electronic networks to transfer prescriptions to pharmacists.

Sweden scored 100%, while Finland, Denmark, Slovenia, Croatia Estonia and Latvia perform very well (above 90%). However, 7 countries (i.e. Malta, Poland, Bulgaria, Ireland, Austria, Luxembourg and Germany) have a lot of room for improvement. In general, there is a big gap between the countries that performed above the EU average and those that performed below it.

* The Netherlands did not participate in the exercise for 2018
** For Estonia the data was removed, because of low reliability