

Enlargement countries - information and communication technology statistics

Statistics Explained

Data from May 2023.

Planned article update: May 2024.

" 40 % of persons aged 16-74 years in Serbia purchased goods or services online in 2022. "

" In 2021, 100 % and 97 % of enterprises in Montenegro and Serbia had a website, respectively, higher than 94 % in the EU. "

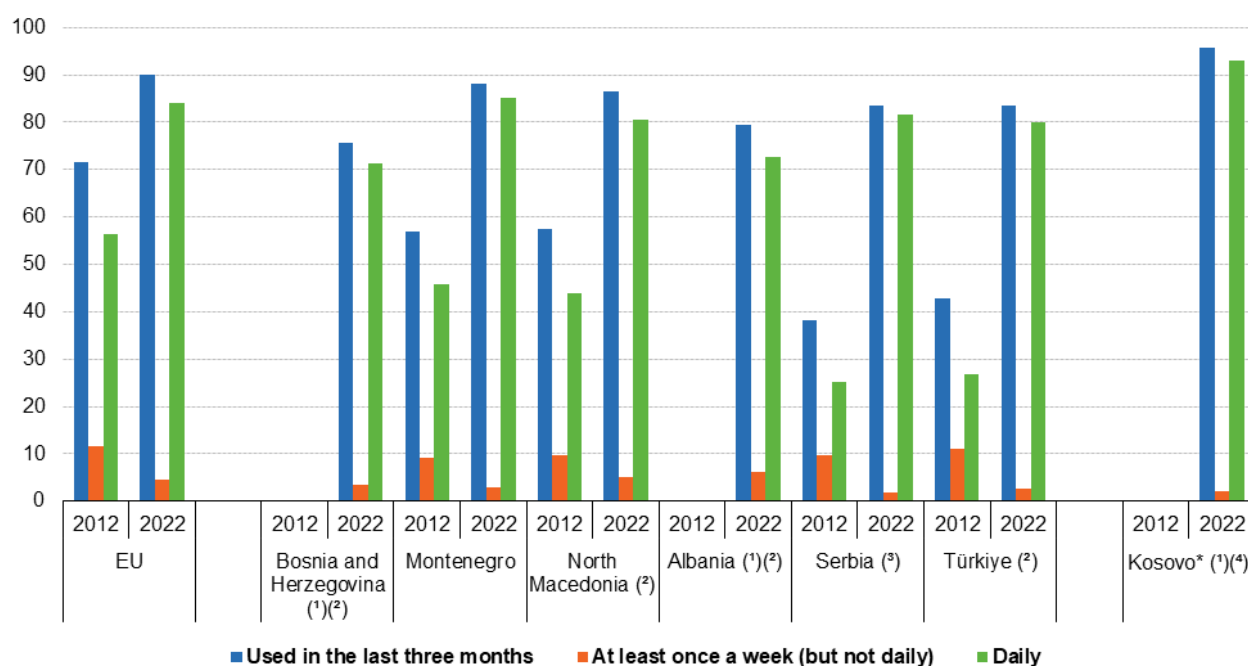
This article is part of an [online publication](#) and provides information on a range of information and communication technology statistics for the Western Balkans and Türkiye and compares this with the corresponding data for the [European Union \(EU\)](#) . Within this region, Bosnia and Herzegovina, Montenegro, North Macedonia, Albania, Serbia and Türkiye are candidate countries, while Kosovo has the status of potential candidate. **Data for Georgia, Moldova and Ukraine, granted candidate status or European perspective by the European Council in June 2022, are not included in this article** ; Statistics Explained articles on the European Neighbourhood Policy-East countries are available [here](#) . The article provides details in relation to this fast-moving aspect of the economy presenting information on households having access to a personal [computer](#) or the internet, and use of the internet by enterprises. * *This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo Declaration of Independence.*

Frequency of internet use

Figure 1 presents the frequency of internet use of individuals aged 16-74 years according to three categories of use: used in the last three months, at least once a week but not daily (weekly use) and daily use.

Frequency of internet use, 2012 and 2022

(% of persons aged 16-74)



* This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo Declaration of Independence.

(1) 2012: not available.

(2) 2021 data instead of 2022.

(3) 2009 data instead of 2012.

(4) 2020 data instead of 2022.

Source: Eurostat (online data codes: isoc_ci_ifp_iu and isoc_ci_ifp_fu)

eurostat

Figure 1: Frequency of internet use, 2012 and 2022 (% of persons aged 16-74 years) Source: Eurostat (isoc_ci_ifp_iu) and (isoc_ci_ifp_fu)

Over the period 2012-2022, the increase in the daily use of internet was the fastest in Türkiye and Serbia, among the countries of the Western Balkans and Türkiye for which data are available for both years. There is no 2012 data for Bosnia and Herzegovina, Albania as well as Kosovo. In Türkiye, the proportion of people aged 16-74 years that used internet daily increased by 53.3 percentage points (pp) from 26.7 % (2012 data) use to 80.0 % in 2021 (no 2022 data available). The same progression was observed in Serbia with an increase of 56.5 pp between 2009 (no 2012 data available) (25.0 %) and 2022 (81.5 %). Montenegro's daily use of internet increased by 39.1 pp from 45.9 % in 2012 to 85.0 % in 2022. A similar rate was reported in North Macedonia, where daily use of internet increased by 36.6 pp from 43.9 % in 2012 to 80.5 % in 2021 (no 2022 data available). Kosovo had the highest share daily use of internet among the Western Balkans and Türkiye, with 92.9 % in 2020 (more recent data not available). The daily internet use in Bosnia and Herzegovina was 71.4 % in 2021 (no 2022 data available) and in Albania 72.8 % in 2021 (no 2022 data available).

The country with the highest proportion of individuals aged 16-74 years to have used internet in the last three months was also Kosovo, with 95.6 % (2020 data), followed by Montenegro (88.2 % - 2022 data), North Macedonia (86.4 % - 2021 data), Serbia (83.5 % - 2022 data), Türkiye (83.4 % - 2021 data), Bosnia and Herzegovina (75.7 % - 2021 data) and Albania (79.4 % - 2021 data). All countries registered much higher proportions in 2022 compared with 2011, similar to the evolution of the daily use of internet.

Moreover, the share of persons using the internet at least once a week (but not daily), decreased to levels below 10 % in all countries in 2022. The lowest share was observed in Serbia (1.8 %) followed by Kosovo (2.2 % - 2020 data), Türkiye (2.7 % - 2021 data), Montenegro (2.9 %), Bosnia and Herzegovina (3.5 % - 2021 data), Albania (6.1 % - 2021 data) and North Macedonia (5.0 % - 2021 data).

In the EU, in 2022, an estimated 90.0 % of individuals aged 16-74 years used internet in the last three months, 4.6 % used it at least once a week (but not daily) and 84.0 % used it daily. From 2011, these numbers increased by 18.4 pp for the use in the last three months, declined by 7.0 pp for weekly usage and increased by 27.7 pp for daily use.

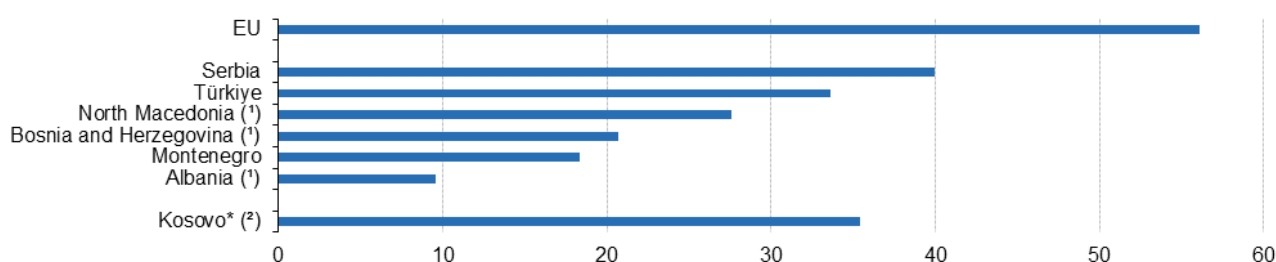
Personal internet use

Figure 2 presents the proportion of individuals aged 16-74 years who purchased goods or services online in 2022. The data cover persons who made such purchases in the last three months prior to the survey.

As previously seen, the frequency of internet use of individuals aged 16-74 years has been drastically increasing over the years. In last decades, the internet has become an increasingly important tool for providing access to information: it can help foster access to science, technology and innovation, and share knowledge but it can also facilitate the purchase of a good or a service.

Individuals who purchased goods or services online, 2022

(% of persons aged 16-74)



* This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo Declaration of Independence.

Note: individuals who purchased goods or services online in the last three months prior to the survey.

(*) 2021 data instead of 2022.

(*) 2020 data instead of 2022.

Source: Eurostat (online data code: isoc_ec_ib20)

eurostat 

Figure 2: Individuals who purchased goods or services online, 2022 (% of persons aged 16-74 years) Source: Eurostat (isoc_ec_ib20)

In 2022, among the Western Balkans and Türkiye, Serbia had the highest proportion of individuals who purchased goods or services online in the last three months prior to the survey, with 40.0 %. The second highest country was Kosovo with 35.4 % (2020 data – more recent data not available). Türkiye with 33.6 % was third followed by North Macedonia with 27.6 % (2021 data – no 2022 data available), Bosnia and Herzegovina with 20.7 % (2021 data – no 2022 data available) and Montenegro at 18.4 %. The country with the lowest proportion of persons aged 16-74 years using the internet to purchase goods or services online was Albania with 9.6 % (2021 data – no 2022 data available).

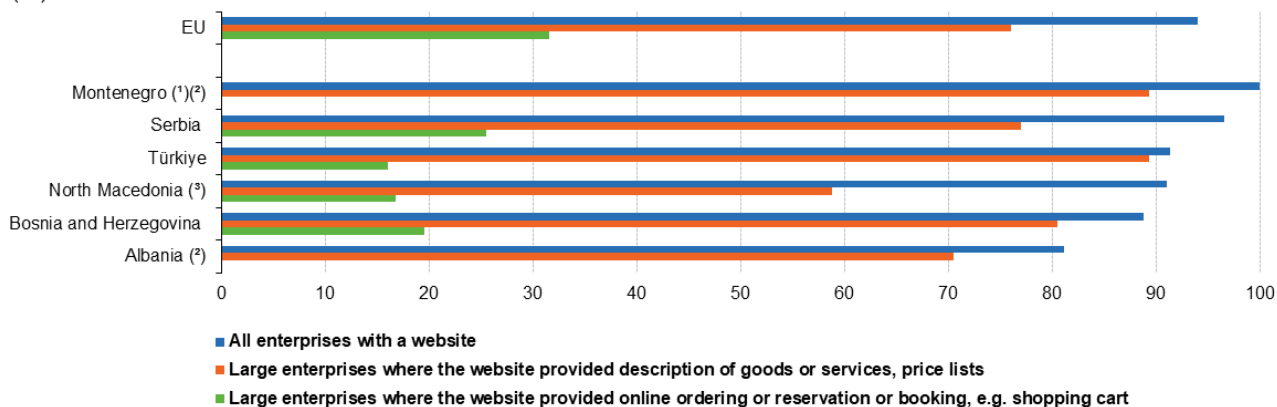
All Western Balkans and Türkiye had rates lower than in the EU. Indeed, the EU's proportion of individuals who purchased goods or services online in the last three months prior to the survey was estimated at 56.1 %, i.e. 16.1 pp higher than in Serbia.

Enterprise internet use

Figure 3 presents the share of enterprises having a website in 2021 and the share of two common website functionalities among large enterprises. The survey population consists of enterprises with 10 or more persons employed. The enterprises are broken down into size classes according to the number of persons employed: 10-49 (small enterprises), 50-249 (medium enterprises), 250+ (large enterprises). Websites can differ according to several aspects: some provide descriptions of goods or services and price lists, others provide online ordering, reservation or booking (e.g. shopping cart).

Enterprises having a website, by functionality, 2021

(%)



Note: Kosovo* not available. Countries are ranked based on the share of all enterprises with a website. Countries are ranked based on the share of all enterprises with a website.

* This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo Declaration of Independence.

(*) Large enterprises where the website provided description of goods or services, price lists: 2019 data instead of 2021.

(*) Large enterprises where the website provided online ordering or reservation or booking, e.g. shopping cart not available.

(*) Large enterprises where the website provided online ordering or reservation or booking, e.g. shopping cart: 2020 data instead of 2021.

Source: Eurostat (online data code: isoc_ciweb)

eurostat

Figure 3: Enterprises having a website, by functionality, 2021 (%) Source: Eurostat (isoc_ciweb)

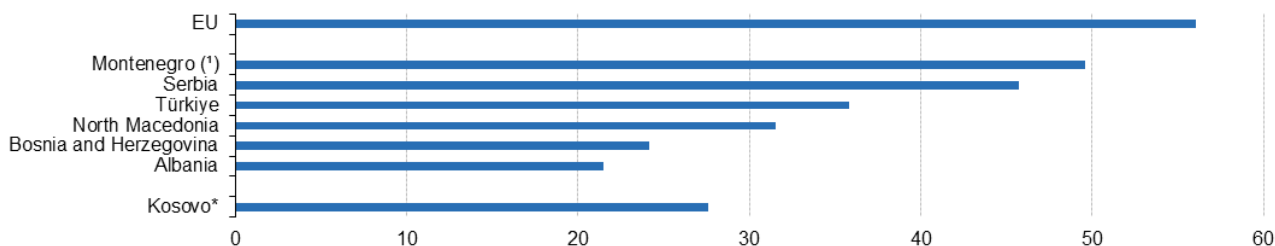
The proportion of enterprises with a website in the Western Balkans and Türkiye in 2021 (2022 data not available) was rather high. Four out of five (81.2 %) of all enterprises in Albania had a website in 2021, of which 70.5 % provided descriptions of goods or services (no information was available for online ordering or booking). The corresponding ratios in the other countries were higher. In Bosnia and Herzegovina and North Macedonia, 88.8 % and 91.1 %, respectively, of all enterprises had a website; of which in Bosnia and Herzegovina, 80.5 % of large enterprises provided a website with descriptions of goods or services but only 19.6 % provided online ordering or booking. North Macedonia reported that 58.8 % of its large enterprises had a website providing descriptions of goods or services and only 16.8 % (2020 data) provided online ordering, reservation or booking. In Türkiye, 91.4 % of all enterprises had a website, and 89.3 % of the large enterprises provided descriptions of goods or services and 16.0 % provided online ordering, reservation or booking. In Serbia, 96.6 % of all enterprises had a website. Serbia had the highest share of large enterprises that provided online ordering, reservation or booking with 25.5 %, while the large ones that provided descriptions of goods or services represented 77.0 %. Montenegro reported the highest rate of enterprises having a website among the Western Balkans and Türkiye with 100 % while large enterprise with a website describing goods or services represented 89.4 % of all enterprises. In comparison, the proportion of enterprises with a website in the EU was 94.0 % while the large ones that provided descriptions of goods or services represented 76.1 % and the large enterprises that had a website that provided online ordering, reservation or booking represented 31.6 %.

Computer skills

Figure 4 reports data of individuals who have basic or above basic overall digital skills in 2019 (more recent data not available). Digital skills indicators are composite indicators which are based on selected activities related to internet or software use performed by individuals in four specific areas (information, communication, problem solving and software skills). According to the variety or complexity of activities performed, two levels of skills ("basic" and "above basic") are computed for each of the four dimensions. Individuals with a basic level of skills have at least one "basic" but no "no skills" in all four domains. Individuals with an above basic level of skills are "above basic" in all four domains.

Individuals who have basic or above basic overall digital skills, 2019

(%)



* This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo Declaration of Independence.

(*) 2017 data instead of 2019.

Source: Eurostat (online data code: isoc_sk_dskl_i)

eurostat 

Figure 4: Individuals who have basic or above basic overall digital skills, 2019 (%) Source: Eurostat (isoc_sk_dskl_i)

Among the Western Balkans and Türkiye, the lowest proportion of individuals who had basic or above basic overall digital skills in 2019 was reported by Albania, at 21.5 %, while Montenegro reported the highest rate with 49.6 % (2017 data – more recent data not available) of individuals having basic or above basic digital skills. The second highest rate was found in Serbia with 45.7 %. Türkiye and North Macedonia, respectively, reported 35.8 % and 31.6 % of their individuals to have basic or above basic digital skills. Kosovo (27.6 %) and Bosnia and Herzegovina (24.2 %), reported rates lower than 30 %. In comparison, the EU's individuals with basic or above basic digital skills were recorded at 56.1 %, which is higher than any of the Western Balkans and Türkiye.

Source data for tables and graphs

- [Enlargement countries — information and communication technology: tables and figures](#)

Data sources

The candidate countries and potential candidates provide ICT data directly to Eurostat's unit responsible for innovation and digitalisation; these data have been used in this article. This mechanism operates in the same way as Eurostat's regular collection of ICT data from EU Member States and EFTA countries. These statistics are also available free-of-charge on Eurostat's website.

While basic principles and institutional frameworks for producing statistics are already in place, the candidate countries and potential candidates are expected to increase progressively the volume and quality of their data and to transmit these data to Eurostat in the context of the EU enlargement process. EU standards in the field of statistics require the existence of a statistical infrastructure based on principles such as professional independence, impartiality, relevance, confidentiality of individual data and easy access to official statistics; they cover methodology, classifications and standards for production.

Information concerning the current statistical legislation on ICT statistics can be found [here](#) .

Eurostat has the responsibility to ensure that statistical production of the candidate countries and potential candidates complies with the EU *acquis* in the field of statistics. To do so, Eurostat supports the national statistical offices and other producers of official statistics through a range of initiatives, such as pilot surveys, training courses, traineeships, study visits, workshops and seminars, and participation in meetings within the [European Statistical System \(ESS\)](#) . The ultimate goal is the provision of harmonised, high-quality data that conforms to European and international standards.

Eurostat's [survey on ICT usage in households and by individuals](#) is an annual survey used to benchmark ICT-driven developments. Eurostat's [survey on ICT usage in enterprises](#) is also an annual survey and generally covers enterprises with at least 10 persons employed; note that the activity coverage excludes financial and insurance activities (NACE Rev. 2 Section K). These surveys follow developments for a set of core variables over time and also

provide greater depth for specific subjects (through ad-hoc additional survey modules). While the surveys initially concentrated on access and connectivity issues, their scope has subsequently been extended to cover a range of subjects (for example, [e-government](#) , social media or [e-commerce](#)). Several candidate countries and potential candidates carry out ICT surveys according to the same specifications as those used by EU Member States.

Tables in this article use the following notation:

Value <i>italics</i>	data value is forecasted, provisional or estimated and is therefore likely to change;
:	not available.

Context

Information and communication technologies (ICTs) affect people’s everyday lives in many ways, both at work and in the home, for example, through communications with friends and colleagues or buying and ordering goods online. The development and expansion of the information society is regarded as critical to improve the [competitiveness](#) of the EU, while EU policymakers also seek to regulate specific areas, such as e-commerce or the protection of an individual’s privacy when using such technologies.

In May 2015, the European Commission adopted a digital single market strategy ([COM\(2015\) 192 final](#)) as one of its top 10 political priorities for the period 2015-2019. The digital single market strategy had 16 initiatives that covered three broad pillars:

- promoting better online access to goods and services across Europe;
- designing an optimal environment for digital networks and services to develop;
- ensuring that the European economy and industry takes full advantage of the digital economy as a potential driver for growth.

In the [European Commission’s work programme for 2017 *Delivering a Europe that protects, empowers and defends*](#) (COM(2016) 710), the European Commission proposed to advance swiftly on proposals that had already been put forward and to undertake a review of the progress made towards completing the digital single market. In May 2017, the European Commission published a [mid-term review of its digital single market strategy](#) (COM(2017) 228 final), which took stock of the situation, while outlining actions in relation to online platforms, the data economy and cybersecurity.

In 2019, the new European Commission President, Ursula von der Leyen, described how she wanted the EU to grasp the opportunities presented by the digital age. Indeed, [A Europe fit for the digital age](#) is one of six Commission priorities for the period 2019-2024. Such a digital transformation is based on the premise that digital technologies and solutions should: open up new opportunities for businesses; boost the development of trustworthy technology; foster an open and democratic society; enable a vibrant and sustainable economy; help fight climate change. With this in mind, during February 2020 the European Commission adopted an overarching presentation of the Commission’s ideas and actions for [Shaping Europe’s Digital Future](#) , as well as specific proposals in relation to:

- [A European strategy for data](#) (COM(2020) 66 final) which seeks to promote the EU as a leading role model for a society empowered by data to make better decisions — in business and the public sector; and
- a [White Paper on Artificial Intelligence — A European approach to excellence and trust](#) (COM(2020) 65 final) which supports a regulatory and investment oriented approach with the twin objectives of promoting the uptake of artificial intelligence and addressing the risks associated with certain uses of this new technology.

Statisticians are well aware of the challenges posed by rapid technological change in areas related to the internet and other new applications of ICTs. As such, there has been a considerable degree of development in this area, with statistical tools being adapted to satisfy new demands for data. Indeed, statistics within this domain are reassessed on an annual basis in order to meet user needs and reflect the rapid pace of technological change.

The [Digital Economy and Society Index \(DESI\)](#) is a composite index that summarises relevant indicators on Europe’s digital performance and tracks the evolution of EU member states in digital competitiveness. DESI is

managed by DG Communications Networks, Content and Technology and it contains 37 indicators, some of which are based on Eurostat's Community surveys on ICT usage.

Additional information on statistical cooperation with the candidate countries and potential candidates is provided [here](#).

Other articles

- [Enlargement countries — statistical overview](#) — online publication
- [Statistical cooperation](#) — online publication

Publications

- **Statistical books/pocketbooks**

[Key figures on enlargement countries](#) — 2019 edition

[Key figures on enlargement countries](#) — 2017 edition

[Key figures on the enlargement countries](#) — 2014 edition

[Digital economy & society in the EU — a browse through our online world in figures](#) — 2018 edition

- **Factsheets**

[Basic figures on the candidate countries and potential candidates — Factsheets](#) — 2023 edition

[Basic figures on Western Balkans and Türkiye — Factsheets](#) — 2022 edition

[Basic figures on enlargement countries — Factsheets](#) — 2021 edition

- **Leaflets**

[Basic figures on enlargement countries](#) — 2019 edition

[Basic figures on enlargement countries](#) — 2018 edition

[Basic figures on enlargement countries](#) — 2016 edition

Database

- [Digital economy and society \(isoc\)](#), see:

ICT usage in households and by individuals (isoc_i)

ICT usage in enterprises (isoc_e)

Dedicated section

- [Enlargement countries](#)

Methodology

- [Candidate countries and potential candidates \(cpc\)](#) (ESMS metadata file — cpc_esms)

External links

- [European Commission — European digital strategy](#)
- [European Commission — Communications Networks, Content and Technology](#)
- [European Commission — European Neighbourhood Policy and Enlargement Negotiations](#)
- [International Telecommunication Union](#)