

Article

Digital trade, UK: 2020

Experimental estimates of aspects of UK digital trade (Information and Communication Technology (ICT) goods and potentially digitally delivered services) for 2016 to 2020, compiled using existing trade data sources.

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1 . Main points

- This article presents experimental estimates for aspects of UK digital trade (Information and Communication Technology (ICT) goods and potentially digitally delivered services) for 2016 to 2020, drawing from international guidance and using currently available data sources.
- ICT goods made up 4.1% of total UK exports of goods and 9.1% of total UK imports of goods in 2020.
- Potentially digitally delivered services made up 74.9% of total UK exports of services and 58.8% of total UK imports of services in 2020.

2 . About digital trade

Digitalisation is one of the defining economic changes of the late 20th and early 21st century, but remains limited within current trade statistics. Measuring the extent to which the digital revolution has changed the economy and the ways people engage with technology, goods and services has been one of the main priorities for the Office for National Statistics (ONS) since the publication of the [Bean Review](#) in 2016.

This article presents initial estimates of digital trade, drawing from the [Organisation for Economic Co-operation and Development \(OECD\) Handbook on Measuring Digital Trade](#).

The OECD define digital trade as all trade that is digitally ordered and/or digitally delivered, where:

- digitally ordered trade is the international sale or purchase of a good or service, conducted over computer networks by methods specifically designed for the purpose of receiving or placing orders
- digitally delivered trade is international transactions that are delivered remotely in an electronic format, using computer networks specifically designed for the purpose

The reporting template for digital trade (Table 2.1 in the OECD handbook) includes the items:

- digitally ordered goods and services
- digitally delivered services
- transactions via digital intermediary platforms
- addendum items

Addendum items are included in the template as they can be compiled using conventional trade statistics, without modifications to existing survey approaches.

Following on from our article published in May 2022 on [developing UK digital trade statistics](#), this article is a progress update which presents experimental estimates of aspects of UK digital trade using existing trade data sources. Specifically, the addendum items "Information and Communication Technology (ICT) goods" and "potentially digitally delivered services" of the OECD reporting template for digital trade. For more information about the items ICT goods and potentially digitally delivered services, please see [Section 6: Data sources and quality](#).

3 . Digital trade estimates

ICT goods

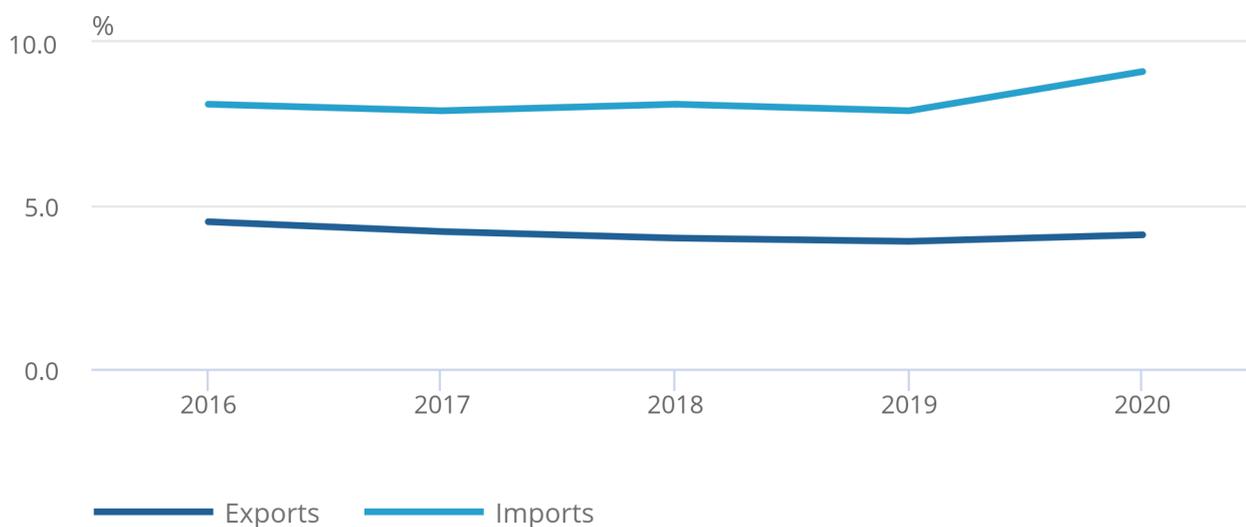
Information and Communication Technology (ICT) goods made up around 4.1% of total UK exports of goods and 8.2% of total UK imports of goods between 2016 and 2020. Figure 1 shows the time series for the ICT goods share of total trade in goods over this time period. While the series remains relatively flat over time, the imports proportion increased from 7.9% in 2019 to 9.1% in 2020. This increase was driven by a larger fall in total goods imports (fell £71.8 billion) than in ICT goods imports (fell £0.5 billion).

Figure 1: ICT goods made up 4.1% of total UK exports of goods and 9.1% of total UK imports of goods in 2020

Information and Communication Technology (ICT) goods as a percentage of total trade in goods, worldwide, 2016 to 2020

Figure 1: ICT goods made up 4.1% of total UK exports of goods and 9.1% of total UK imports of goods in 2020

Information and Communication Technology (ICT) goods as a percentage of total trade in goods, worldwide, 2016 to 2020



Source: Office for National Statistics - UK trade statistics

In 2020 similar proportions were seen in UK goods exported to EU and non-EU countries. ICT goods accounted for 5.2% of UK goods exported to EU countries and 3.1% of UK goods exported to non-EU countries. Imports had a larger difference, with ICT goods making up 6.5% of UK goods imported from EU countries compared with 12.1% of UK goods imported from non-EU countries in 2020. The non-EU imports share is driven mainly by computer, electronic and optical products (Classification of Product by Activity (CPA) division 26).

ICT goods are contained within four product groups:

- computer, electronic and optical products (CPA division 26)
- machinery and equipment not elsewhere classified (n.e.c.) (CPA division 28)
- publishing (CPA division 58)
- motion picture and recording (CPA division 59)

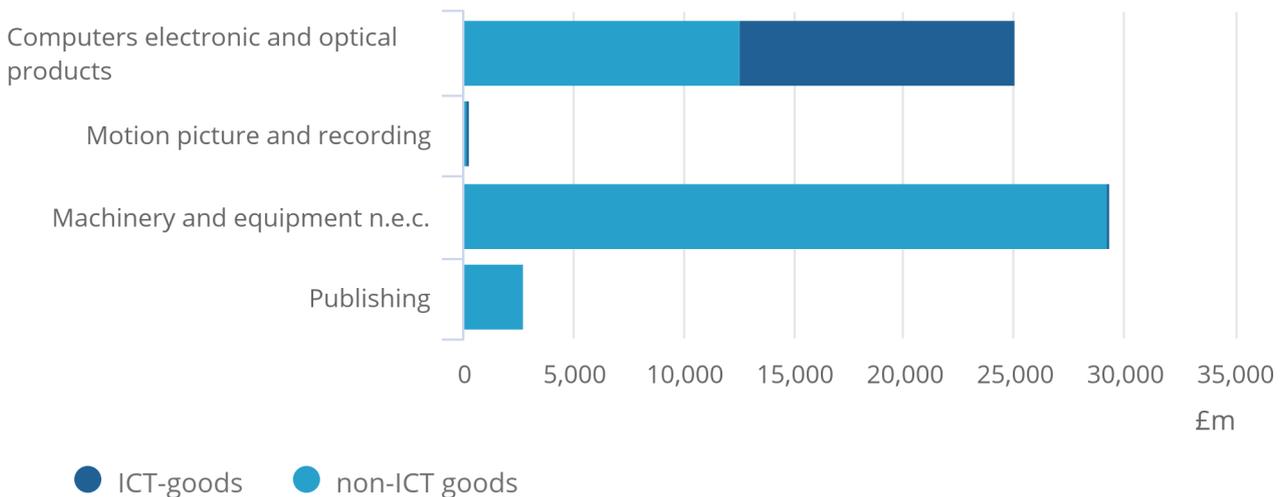
For exports, ICT goods made up £12.5 billion of computers, electronic and optical products in 2020. ICT goods exports for the other three product groups were negligible.

Figure 2: ICT goods accounted for 49.8% of computers, electronic and optical products exports in 2020

Information and Communication Technology (ICT) goods by product, exports, worldwide, 2020

Figure 2: ICT goods accounted for 49.8% of computers, electronic and optical products exports in 2020

Information and Communication Technology (ICT) goods by product, exports, worldwide, 2020



Source: Office for National Statistics - UK trade statistics

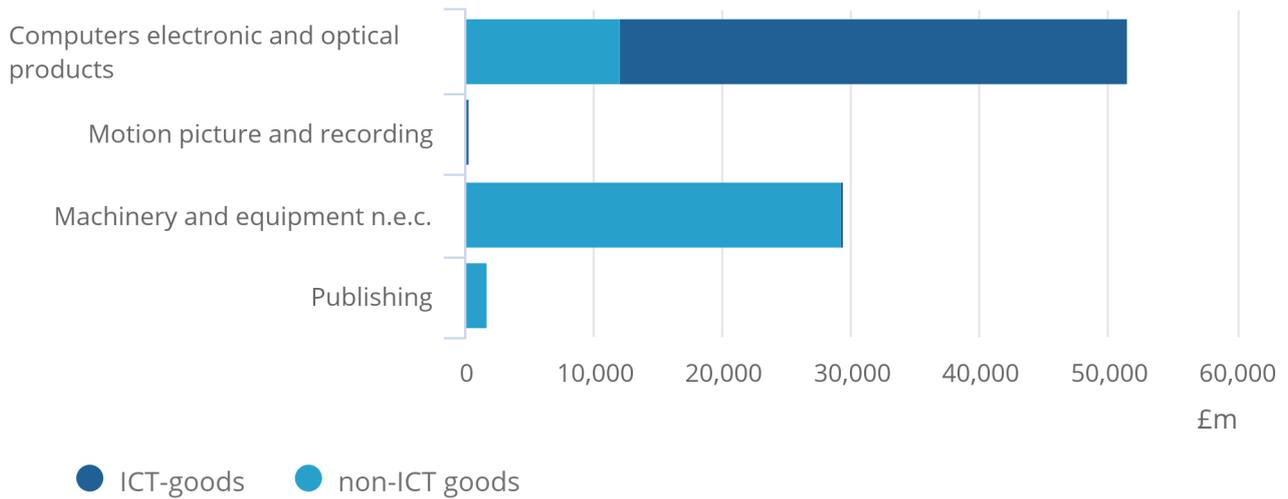
In 2020, ICT goods made up £39.5 billion of computers, electronic and optical products imports. Similar to exports, ICT goods imports for the other three product groups were negligible.

Figure 3: ICT goods accounted for 76.5% of computers, electronic and optical products imports in 2020

Information and Communication Technology (ICT) goods by product, imports, worldwide, 2020

Figure 3: ICT goods accounted for 76.5% of computers, electronic and optical products imports in 2020

Information and Communication Technology (ICT) goods by product, imports, worldwide, 2020



Source: Office for National Statistics - UK trade statistics

Potentially digitally delivered services

Potentially digitally delivered services made up around 63.2% of total UK exports of services and 44.9% of total UK imports of services between 2016 and 2020. Figure 4 shows the time series for the potentially digitally delivered services share of total trade in services over this time period. An increase was seen in both exports and imports for 2020.

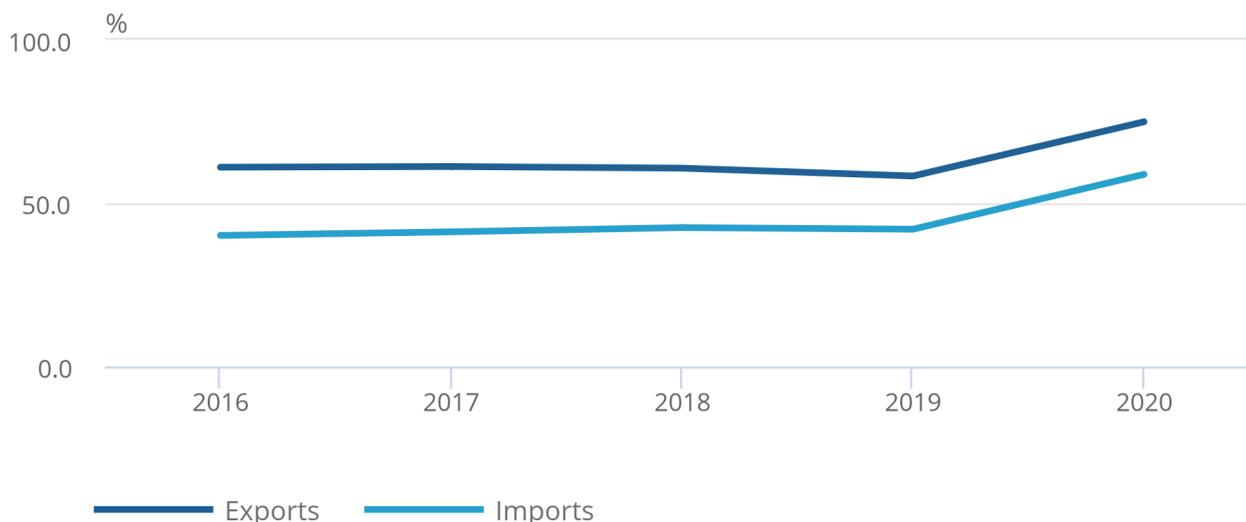
The [coronavirus \(COVID-19\) pandemic had a larger effect on services than goods according to the OECD](#). Remote supply (Mode 1) increased in total UK service exports and imports between 2019 to 2020. This primarily reflected the restrictions on global travel put in place at the start of the coronavirus pandemic. The restrictions are likely to have driven businesses to conduct more of their business with the rest of the world remotely.

Figure 4: Potentially digitally delivered services made up 74.9% of total UK exports of services and 58.8% of total UK imports of services in 2020

Potentially digitally delivered services as a percentage of total trade in services, worldwide, 2016 to 2020

Figure 4: Potentially digitally delivered services made up 74.9% of total UK exports of services and 58.8% of total UK imports of services in 2020

Potentially digitally delivered services as a percentage of total trade in services, worldwide, 2016 to 2020



Source: Office for National Statistics - UK trade statistics

Potentially digitally delivered services accounted for 73.2% of UK services exported to EU countries and 75.9% of UK services exported to non-EU countries in 2020. For imports, potentially digitally delivered services accounted for 51.3% of UK services imported from EU countries and 64.5% of UK services imported from non-EU countries in 2020. The larger proportion of non-EU imports is primarily driven by other business services (Extended Balance of Payments Services (EBOPS) 10.3.5).

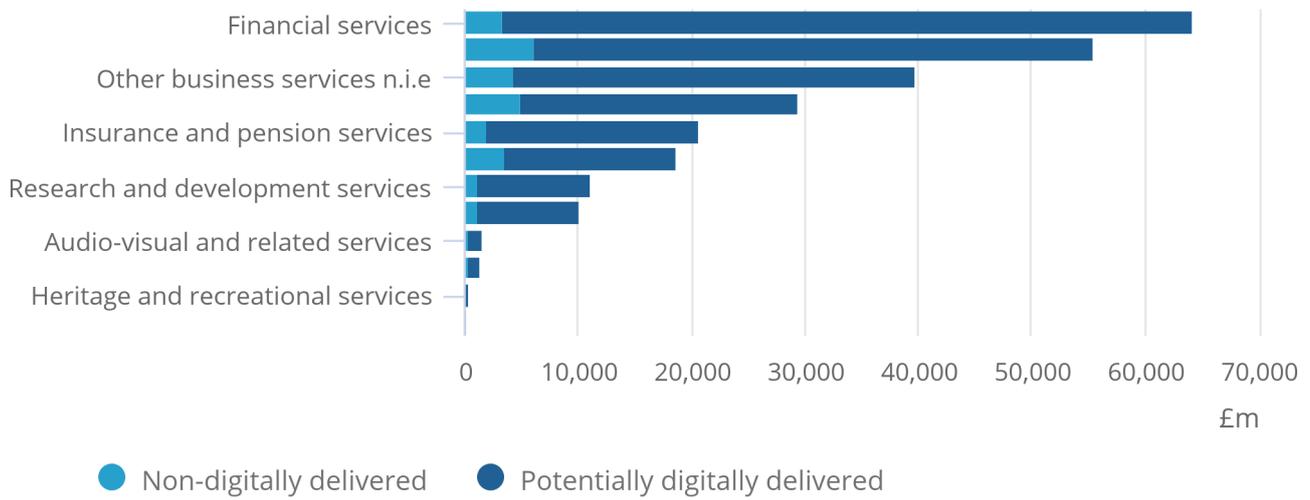
For exports, financial services had the largest value of potentially digitally delivered services at £60.8 billion in 2020. Professional and management consulting services had the second largest value of potentially digitally delivered services at £49.3 billion, followed by other business services not incorporated elsewhere (n.i.e.) at £35.5 billion.

Figure 5: At £60.8 billion, financial services was the largest potentially digitally delivered service for exports in 2020

Trade in services breakdown by Extended Balance of Payments Services (EBOPS), exports, worldwide, 2020

Figure 5: At £60.8 billion, financial services was the largest potentially digitally delivered service for exports in 2020

Trade in services breakdown by Extended Balance of Payments Services (EBOPS), exports, worldwide, 2020



Source: Office for National Statistics - UK trade statistics

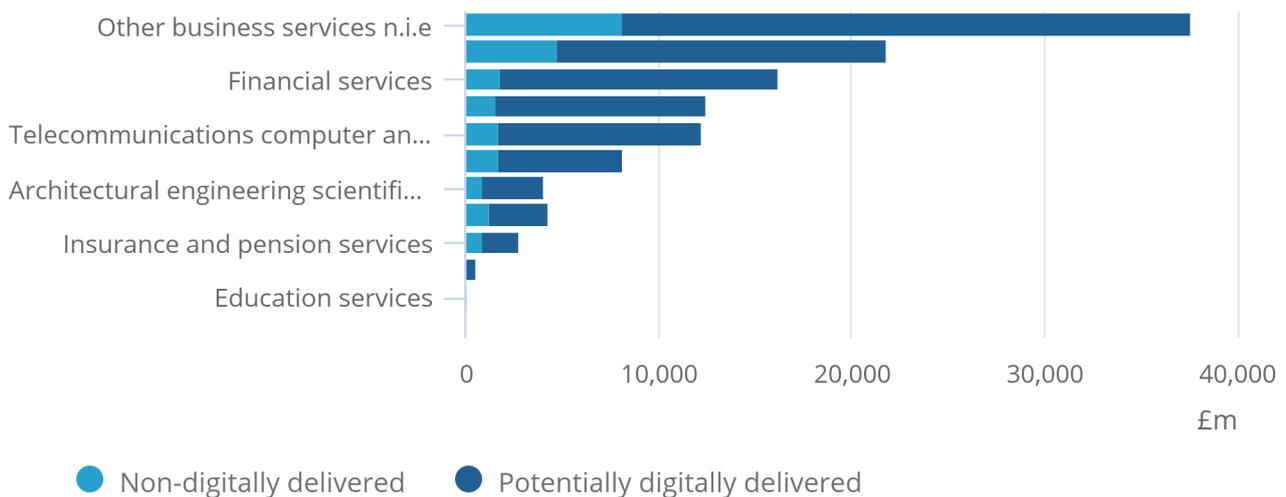
For imports, other business services n.i.e. had the largest value of potentially digitally delivered services at £29.4 billion in 2020. Professional and management consulting services had the second largest value of potentially digitally delivered services imports at £17.1 billion and financial services was the third largest value at £14.4 billion.

Figure 6: At £29.4 billion, other business services was the largest potentially digitally delivered service for imports in 2020

Trade in services breakdown by Extended Balance of Payments Services (EBOPS), imports, worldwide, 2020

Figure 6: At £29.4 billion, other business services was the largest potentially digitally delivered service for imports in 2020

Trade in services breakdown by Extended Balance of Payments Services (EBOPS), imports, worldwide, 2020



Source: Office for National Statistics - UK trade statistics

4 . Digital trade data

[Digital trade](#)

Dataset | Released 5 September 2022

Annual estimates of aspects of UK digital trade (ICT goods and potentially digitally delivered services) including trade inside and outside the EU.

5 . Glossary

Information and Communication Technology (ICT) goods

Goods which are intended to fulfill the function of information processing and communication by electronic means, including transmission and display, or use electronic processing to detect, measure and/or record physical phenomena, or to control a physical process.

Potentially digitally delivered services

An upper bound proxy for digitally delivered services.

Potentially ICT-enabled services

Service categories which can predominantly be delivered digitally.

Mode 1 (remote supply)

Where a supplier in one country sells a service to a customer in another, but without the movement of people. An example is UK financial services being supplied by a UK business to overseas customers remotely by an online platform.

Digital Intermediary Platform (DIP)

Online fee-based intermediation services enabling transactions between multiple buyers and multiple sellers, without the intermediation platform taking economic ownership of the goods or rendering services that are being sold.

6 . Data sources and quality

ICT goods

Information and Communication Technology (ICT) goods are enablers of digitalisation and are growing in demand with the increased digitalisation of the world economy. Statistics on ICT goods facilitates internationally comparable indicators on ICT consumption, investment, trade and production. Knowing how trade in ICT goods is evolving can be used to gain an understanding of countries' digital economy development.

The [Organisation for Economic Co-operation and Development \(OECD\) Handbook on Measuring Digital Trade](#) includes ICT goods, defined as:

being intended to fulfil the function of information processing and communication by electronic means, including transmission and display, or use electronic processing to detect, measure and/or record physical phenomena, or to control a physical process.

The latest classification of ICT goods ([United Nations Conference on Trade Development \(UNCTAD\) \(PDF, 376KB\)](#), 2018) includes the following five categories:

- computers and peripheral equipment
- communication equipment
- consumer electronic equipment
- electronic components
- miscellaneous

Potentially digitally delivered services

While current data sources do not enable the production of digitally delivered services estimates, "potentially digitally delivered services" can be used as an upper bound proxy.

Potentially digitally delivered services focuses on the delivery of the service, therefore includes services which have been digitally ordered as well as services which have been non-digitally ordered.

The [UNCTAD task group \(PDF, 626KB\)](#) developed a list of potentially ICT-enabled services, using the Extended Balance of Payments Services (EBOPS) 2010 classification:

- insurance and pension services (EBOPS 6)
- financial services (EBOPS 7)
- charges for the use of intellectual property not incorporated elsewhere (n.i.e.) (EBOPS 8)
- telecommunications, computer, and information services (EBOPS 9)
- research and development services (EBOPS 10.1)
- professional and management consulting services (EBOPS 10.2)
- architectural, engineering, scientific and other technical services (EBOPS 10.3.1)
- other business services n.i.e. (EBOPS 10.3.5)
- audio-visual and related services (EBOPS 11.1)
- health services (EBOPS 11.2.1)
- education services (EBOPS 11.2.2)
- heritage and recreational services (EBOPS 11.2.3)

Using this list of potentially ICT-enabled services along with modes of supply estimates of remote trade (Mode 1), we can produce estimates of potentially digitally delivered services.

Mode 1 includes internet or ICT networks, telephone, fax, email, post, or any other physical or electronic mean involving cross-border movement of the service. As it includes non-digital means (for example, post, phone, manually typed emails and so on) this is broader than digitally delivered and therefore provides an upper-bound estimate of digitally delivered trade.

UK trade data

Further information on UK trade data sources can be found in the [UK trade monthly bulletin](#) and the [UK trade QMI](#).

7 . Future developments

This method is based on the [Organisation for Economic Co-operation and Development \(OECD\) Handbook on Measuring Digital Trade](#). The handbook is a living document given that the impact and structure of the digital economy are evolving rapidly. Current estimates in this article fulfil part of the addendum items in the suggested digital trade reporting mechanism. Other items within the reporting template include:

- digitally ordered goods and services
- digitally delivered services
- transactions via digital intermediary platforms

Questions to measure these additional dimensions of the digital economy were piloted on the Digital Economy Survey (formerly the E-commerce Survey) for the 2021 reference period only. Data collection is ongoing and data from these new questions will feed into future research and could potentially be used to populate much of the digital trade reporting template.

We would appreciate feedback from users to help inform the priorities for the programme in the future. Please email any feedback to trade@ons.gov.uk.

Digital economy research

The Office for National Statistics (ONS) has developed a methodology to use existing data sources to create estimates of some important components of the digital economy against a set of internationally agreed definitions. Our [UK digital economy research: 2019 article](#) presents gross value added (GVA) estimates for two different definitions of the digital economy. Many of the next steps for digital economy research can be considered as part of a broader programme to test, and where possible populate, the digital supply and use tables.

Administrative data sources

The ONS is investigating the [feasibility of using administrative data sources for UK digital economy research](#). Prior to progressing with digital trade research using administrative sources, additional work will need to be carried out to understand more about how location data of a transaction are captured. For example, is this based on the business or household address at registration or where the transaction is processed such as through a clearing house. It is essential to understand more about this, as a domestic transaction may be classed as a cross-border trade unless measures are taken.

8 . Related links

[Developing UK digital trade statistics](#)

Article | Released 5 May 2022

An introduction to digital trade and plans to develop estimates.

[Feasibility of using administrative data sources for UK digital economy research: May 2022](#)

Article | Released 5 May 2022

Article exploring the use of administrative data sources to help produce value estimates of the digital economy.

[UK Digital Economy Research: 2019](#)

Article | Released 28 January 2022

Research developing a framework for measuring the digital economy, including estimates and future plans.

[UK Trade in services by modes of supply: 2020](#)

Bulletin | Released 25 February 2022

Experimental estimates of UK trade in services by Mode of Supply, country and service type on a balance of payments basis.

9 . Cite this article

Office for National Statistics (ONS), released 5 September 2022, ONS website, article, [Digital trade, UK: 2020](#)