

Statistical bulletin

# E-commerce and ICT activity, UK: 2018

Use of information and communication technology (ICT) and the value of e-commerce activity by UK businesses.



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# 1 . Main points

- E-commerce sales by businesses in the UK non-financial sector were £688 billion in 2018, rising from £582 billion in 2017; at 18%, this was the largest annual growth seen since comparable records began in 2014.
- Growth in total e-commerce sales has been mainly driven by an increase in website sales of £138 billion since 2014, while electronic data interchange (EDI) sales have increased by £37 billion.
- In 2018, 20.5% of the turnover of businesses with 10 or more employees was from e-commerce, up from 18.6% in 2017.
- For the first time, more than half of businesses with 10 or more employees had a broadband speed of over 30Mbps at 54% in 2018.
- In 2018, 18.5% of businesses with 1,000 or more employees experienced an information and communication technology (ICT) security incident.

## 2 . Things you need to know about this release

The [Organisation for Economic Co-operation and Development \(OECD\)](#) definition of e-commerce is used in this statistical bulletin. An e-commerce transaction is defined as, "the sale or purchase of goods or services, conducted over computer networks by methods specifically designed for the purpose of receiving or placing of orders." It is important to note, under this definition, that "the goods or services are ordered by those methods, but the payment and the ultimate delivery of the goods or services do not have to be conducted online."

These estimates are sourced primarily from the E-commerce Survey of UK businesses, which covers the manufacturing, production, construction and distribution sectors as well as parts of the service sectors. Information from the [Annual Business Survey \(ABS\)](#) is also used in the preparation of e-commerce estimates.

Further information on e-commerce and information and communication technologies (ICT) activity is available in the [E-commerce Quality and Methodology Information \(QMI\) report](#).

The estimates back to 2016 have been revised where necessary to take account of updated information from businesses.

From 2014, the E-commerce Survey of UK businesses introduced coverage of micro-enterprises, that is, businesses with fewer than 10 employees. Up until this time, the survey only covered businesses employing 10 or more people. This means that longer-term comparisons over time can only be made for businesses with 10 or more employees.

All estimates in this release are in current prices.

This year, an online questionnaire was introduced for the E-commerce Survey data collection, replacing the previously used paper questionnaire. This improvement to the survey was expected to improve quality and reduce the burden on small firms. The change appears to have caused some discontinuity in some results for businesses with fewer than 10 employees. The impact can be seen in the results on all businesses especially where proportions are used that are dominated by smaller businesses.

The data collection change has had no noticeable impact on the results for businesses with 10 or more employees. Therefore, time series comparisons in this release should generally focus on businesses with 10 or more employees.

More information about this change to the survey collection process and the impact that this has had is available in the section, [What has changed in this release](#).

### 3 . E-commerce sales show largest annual growth since 2014

The value of e-commerce sales in the UK non-financial sector reached £688 billion in 2018, rising from £582 billion in 2017. This annual growth of 18% was the largest seen since comparable records began in 2014. When looking at businesses with 10 or more employees, there is a similar trend, with e-commerce sales rising by 17% since 2017, the largest growth since 2009.

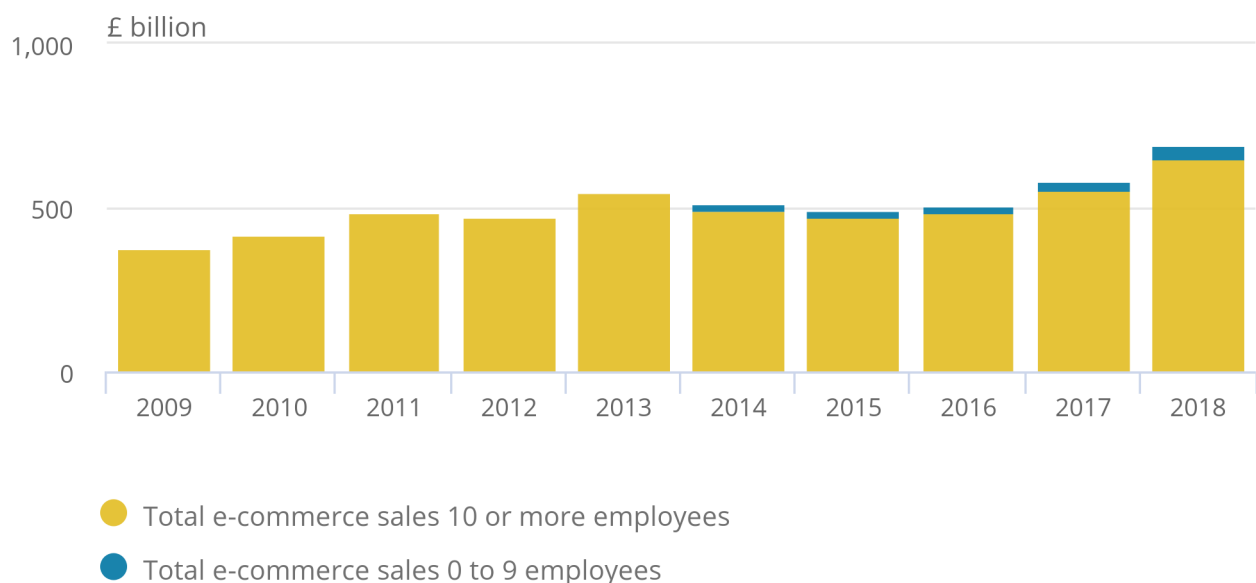
This is in part because of e-commerce sales making up an increasing amount of businesses' turnover. In 2018, the proportion of businesses' turnover derived from e-commerce reached 18.4%, rising by 1.8 percentage points since 2017. The impact of e-commerce on businesses' turnover is mostly seen in larger businesses, with 28% of turnover being derived from e-commerce in businesses with 1,000 or more employees and 20.5% in businesses with 10 or more employees, compared with just 6.7% in micro-enterprises.

#### Figure 1: E-commerce sales have risen sharply in recent years

UK e-commerce sales, 2009 to 2018 (including micro-enterprises from 2014)

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UK e-commerce sales, 2009 to 2018 (including micro-enterprises from 2014)



Source: Office for National Statistics – E-commerce survey of UK businesses

#### Notes:

1. Coverage of micro-enterprises (those with fewer than 10 employees) is only available from 2014.

E-commerce sales are classed as either electronic data interchange (EDI) sales or website sales. EDI can be defined as an automated transaction between businesses. Therefore, EDI sales are classed as business-to-business sales. In 2018, growth was slightly higher in website sales, growing by £66 billion (22%) since 2017 to £365 billion, while EDI sales increased by £40 billion (14%) to £323 billion.

Micro-enterprises have minimal impact on the value of e-commerce sales, as shown in Figure 1. The number of micro-enterprises far exceeds the number of larger businesses with 1,000 or more employees. For this reason, micro-enterprises have a larger impact on the proportion of businesses making e-commerce sales.

The proportion of businesses making website sales was 12.9% in 2018, while 1.8% of businesses made EDI sales. The larger the business, the more likely it is to make e-commerce sales, with 47% of businesses with 1,000 or more employees making website sales in 2018, compared with 12% of micro-enterprises. A similar pattern can be seen with EDI sales, with 26% of businesses with 1,000 or more employees making EDI sales, compared with 1.3% of micro-enterprises.

Website sales are split into sales performed through a business' own website and sales performed through a third-party website. In 2018, website sales were mainly performed through a business' own website, being performed by 10.7% of businesses. In comparison, 5.6% of businesses made website sales through a third-party website.

## **4 . EDI sales are dominated by manufacturing and wholesale sectors**

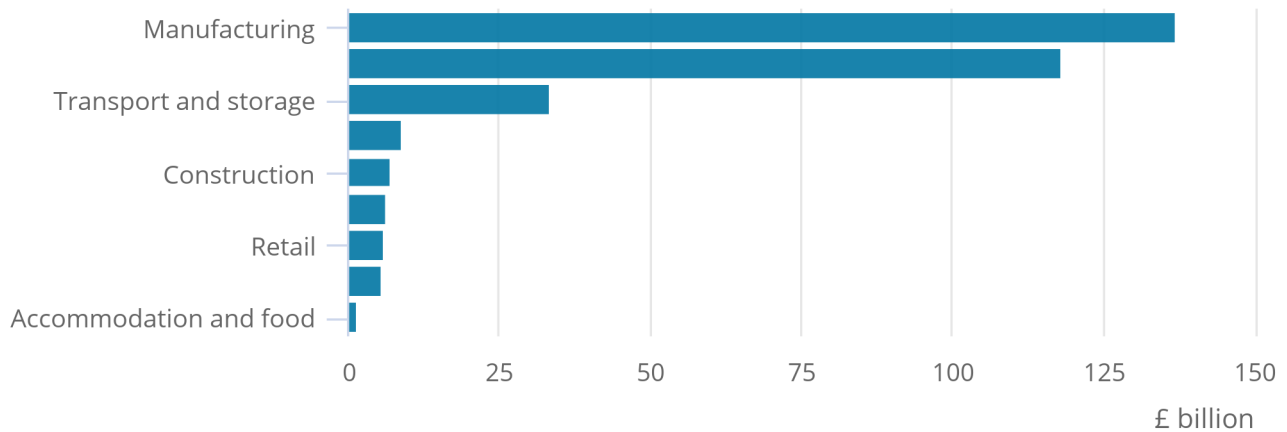
In 2018, the value of electronic data interchange (EDI) sales was £323 billion, with the manufacturing and wholesale sectors making up more than three-quarters of this value at £137 billion and £118 billion. These values represented 24% and 11% of the turnover in these sectors. While the transport and storage sector also derives much of its turnover from EDI sales at 17%, its relatively low turnover compared with the other sectors meant it had less of an impact on total EDI values.

## Figure 2: EDI sales are dominated by the manufacturing and wholesale sectors

UK e-commerce sales via electronic data interchange (EDI), by industry sector, 2018 (including micro-enterprises)

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UK e-commerce sales via electronic data interchange (EDI), by industry sector, 2018 (including micro-enterprises)



Source: Office for National Statistics – E-commerce survey of UK businesses

#### Notes:

1. Differences may occur between totals and the sum of their independently rounded components.

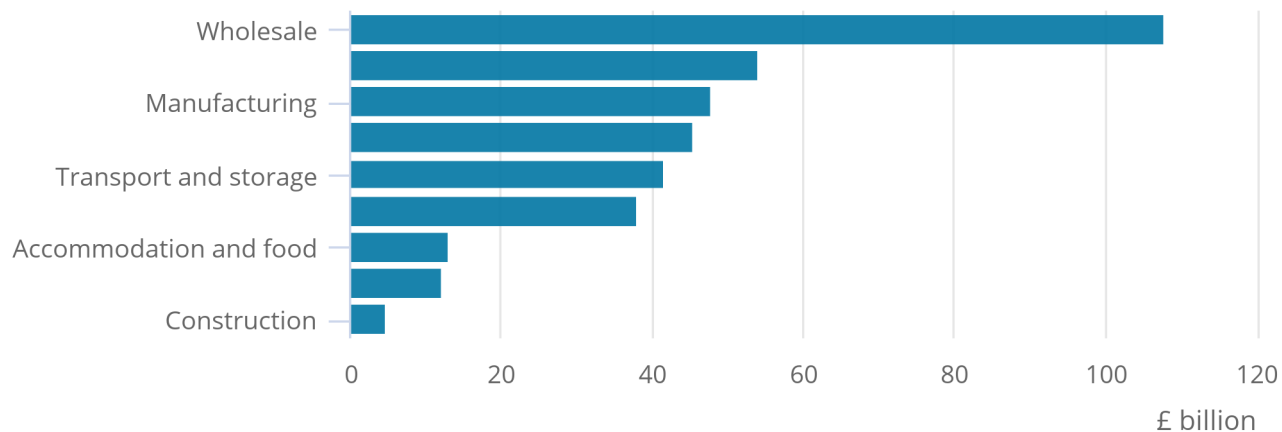
Website sales are more evenly distributed across the sectors compared with EDI sales. Despite this, the wholesale sector clearly dominates website sales at £108 billion in 2018, twice as much as the second-highest sector, which was the retail sector at £54 billion.

### Figure 3: Website sales are strong across the industrial sectors

UK e-commerce sales over a website, by industry sector, 2018 (including micro-enterprises)

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UK e-commerce sales over a website, by industry sector, 2018 (including micro-enterprises)



Source: Office for National Statistics – E-commerce survey of UK businesses

## 5 . Strong growth in website sales across most sizes of businesses

In 2018, businesses with 1,000 or more employees continued to dominate website sales, making up half of the total UK value. These businesses also saw the largest growth in website sales from 2009, growing from £60 billion to £182 billion in 2018. This was a growth of 204%. Smaller businesses also saw large growth, with website sales by businesses with 10 to 49 employees rising from £7.8 billion to £44.1 billion in the same period, a growth of 465%.

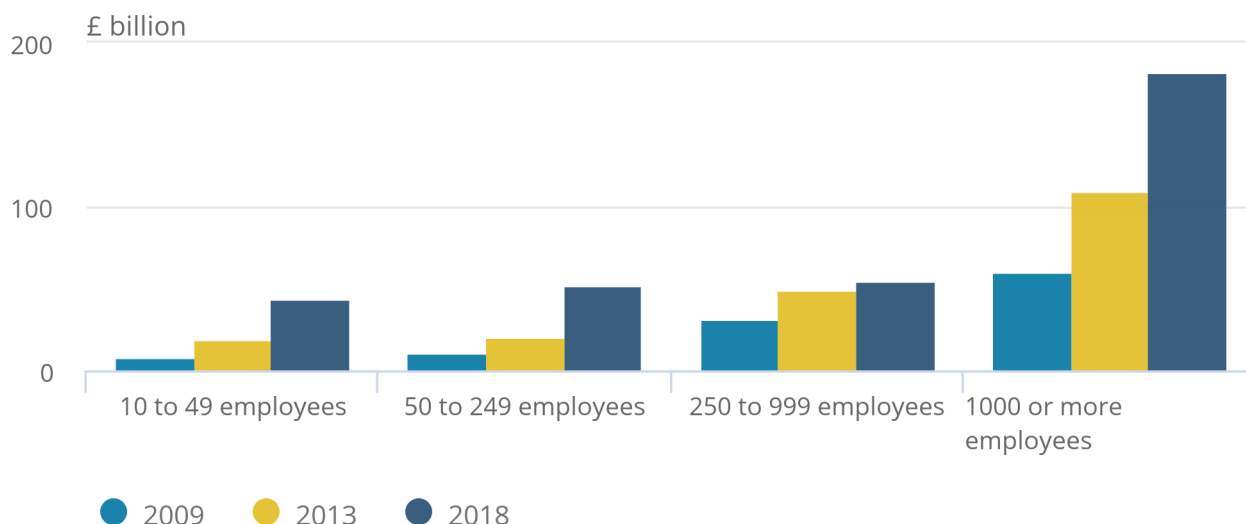
While website sales from businesses with 10 or more employees grew from £111 billion to £333 billion between 2009 and 2018, growth in electronic data interchange (EDI) has been slower in comparison. Total EDI sales from businesses with 10 or more employees rose from £265 billion in 2009, to £317 billion in 2018. This is in part because of a decline in EDI sales between 2013 and 2016, where EDI sales dropped from their peak of £347 billion to £255 billion.

## Figure 4: Most businesses have greatly increased their website sales since 2009

UK e-commerce sales over a website, by size of business, 2009 to 2018 (excluding micro-enterprises)

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UK e-commerce sales over a website, by size of business, 2009 to 2018 (excluding micro-enterprises)



Source: Office for National Statistics – E-commerce survey of UK businesses

#### Notes:

1. Differences may occur between totals and the sum of their independently rounded components.
2. Coverage of micro-enterprises (those with fewer than 10 employees) is only available from 2014, and therefore they are not included in Figure 4.

E-commerce sales have become an increasing part of the economy, mainly from the rise in website sales. In 2009, website sales represented 4.9% of the turnover of businesses with 10 or more employees. In 2018, this had risen to 10.5%. Over the same period, EDI sales dropped from 11.6% of the turnover of businesses with 10 or more employees, to 10.0%.

## 6 . Broadband speeds have rapidly increased in recent years

In 2018, the percentage of UK businesses with internet access was 88%, with 96% of businesses with 10 or more employees having internet access. This compares with just 88% of micro-enterprises.

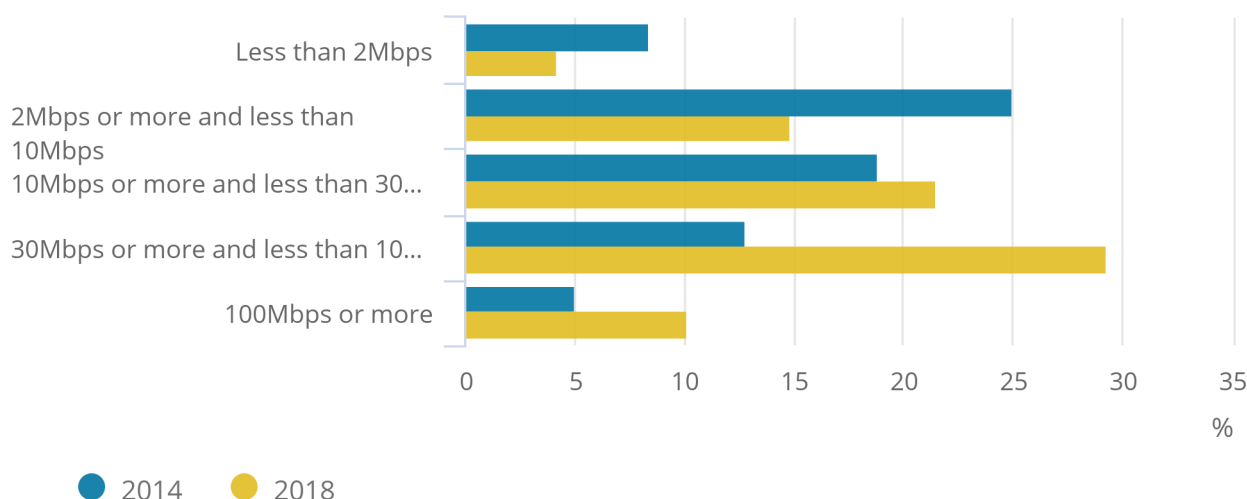
Internet connection speeds continued to increase between 2014 and 2018, with 30 to 100 Mbps replacing 2 to 10 Mbps as the most common internet connection speed.

## Figure 5: The internet speeds of businesses continued to increase greatly over the last five years

Proportion of UK businesses by maximum contracted internet connection speed, 2014 and 2018

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Proportion of UK businesses by maximum contracted internet connection speed, 2014 and 2018



Source: Office for National Statistics – E-commerce survey of UK businesses

More than half of businesses with 10 or more employees had a connection speed of over 30Mbps in 2018 at 54%, a rise from 45% in 2017 and just 10% in 2010. In comparison, micro-enterprises were less likely to have a faster internet connection, with 38% having a connection speed greater than 30Mbps. The larger the business, the more likely it has a faster connection speed.

For connection speeds greater than 100Mbps, the difference between micro-enterprises and larger businesses was even greater. While 71% of businesses with 1,000 or more employees had a connection speed greater than 100Mbps, only 9.3% of micro-enterprises had a similar connection speed.

## 7. Less than half of micro-enterprises use a website

The percentages of all businesses that used either their own or a third-party website was 48% in 2018. Micro-enterprises were less likely to use a website, with just 45% using a website in comparison with 84% of businesses with 10 or more employees.

There has been little change in the percentage of businesses with 10 or more employees that had websites in recent years. Since 2014, this rose by just three percentage points from 81%.



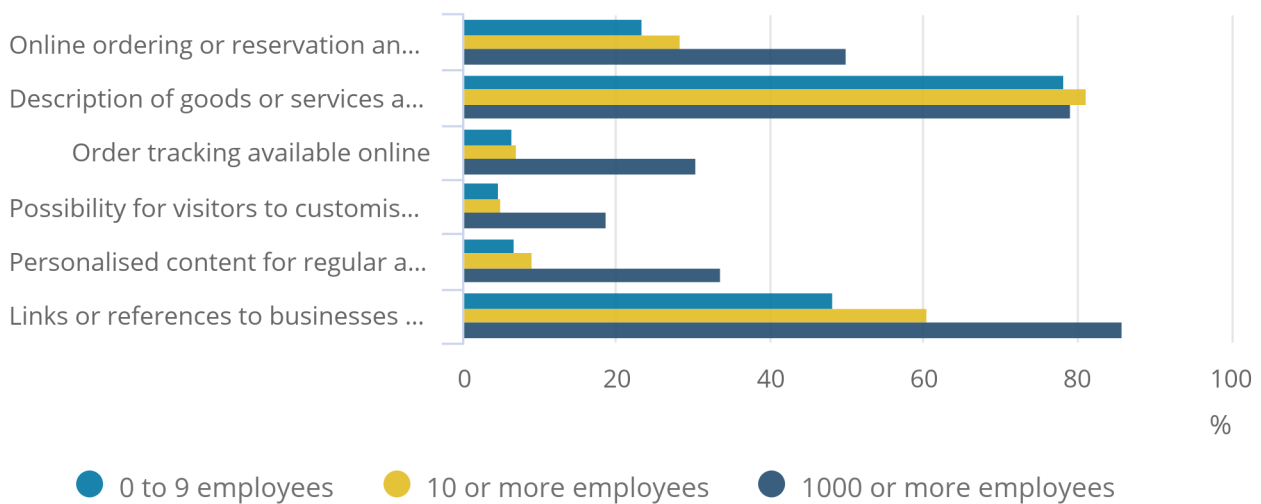
Figure 6 shows that there was also a difference in how different sized businesses used their websites. While 79% of businesses with a website used it to provide information on their goods, services and prices, which is similar across all sizes of businesses, larger businesses were more likely to have additional facilities on their websites. Many businesses with 1,000 or more employees included services on their website such as online ordering or booking (50%), order tracking (30%) and personalised content for repeat visitors (34%), while these features were much less common in micro-enterprises.

**Figure 6: Larger businesses make greater use of their websites than micro-enterprises**

Proportion of UK businesses with website facilities, by size of business, 2018

Figure 6: Larger businesses make greater use of their websites than micro-enterprises

Proportion of UK businesses with website facilities, by size of business, 2018



Source: Office for National Statistics – E-commerce survey of UK businesses

## 8 . Social networks have become increasingly popular with businesses

In 2018, social media in some form was used by 72% of UK businesses with 10 or more employees, increasing by 8.6 percentage points since 2016 (Figure 7). The most popular type of social media used was social networks, with 68% of businesses with 10 or more employees using them. Other types of social media, such as blogs, content sharing networks and wiki-based tools, were much less popular, at 32.4%, 25.3% and 3.3% respectively.

When looking at all UK businesses, social media saw use across all sectors of the economy, with the information and communication sector having the greatest percentage of businesses using social media at 64%. In comparison, the utilities sector had just 38% of businesses using social media.

Social media was used by businesses to develop their image or market their products, with 70% of UK businesses with social media using it for this purpose. This was most popular in the retail and accommodation and food services sectors, being used by 87% and 86% of businesses with social media in those sectors respectively.

The accommodation and food services sector also appeared to use its social media for broader purposes than other business sectors. Social media in this sector was used for obtaining and responding to customer feedback and for recruiting employees by 75% and 47% of businesses with social media respectively. In comparison, the UK average for these categories of social media use were 41% and 18% respectively.

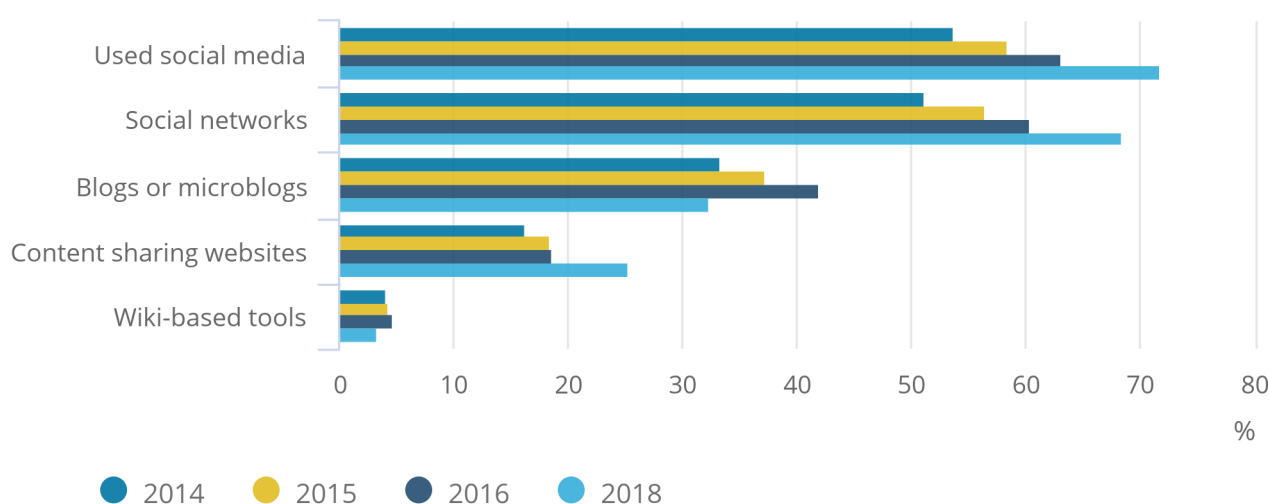
The use of social media is related to the size of the business, where larger businesses are more likely to use social media.

### Figure 7: More businesses are making use of social networks

Proportion of UK businesses using social media, 2014 to 2018

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Proportion of UK businesses using social media, 2014 to 2018



Source: Office for National Statistics – E-commerce survey of UK businesses

Notes:

1. Data for 2017 are not available.

## **9 . 19% of large businesses have encountered ICT security issues**

The percentage of businesses with some type of measured information and communication technology (ICT) security process in 2018 was 86%, including 94% of businesses with 10 or more employees. These security measures usually involved strong password authentication, keeping software up to date and making off-site backups of data, at 79%, 76% and 49% respectively.

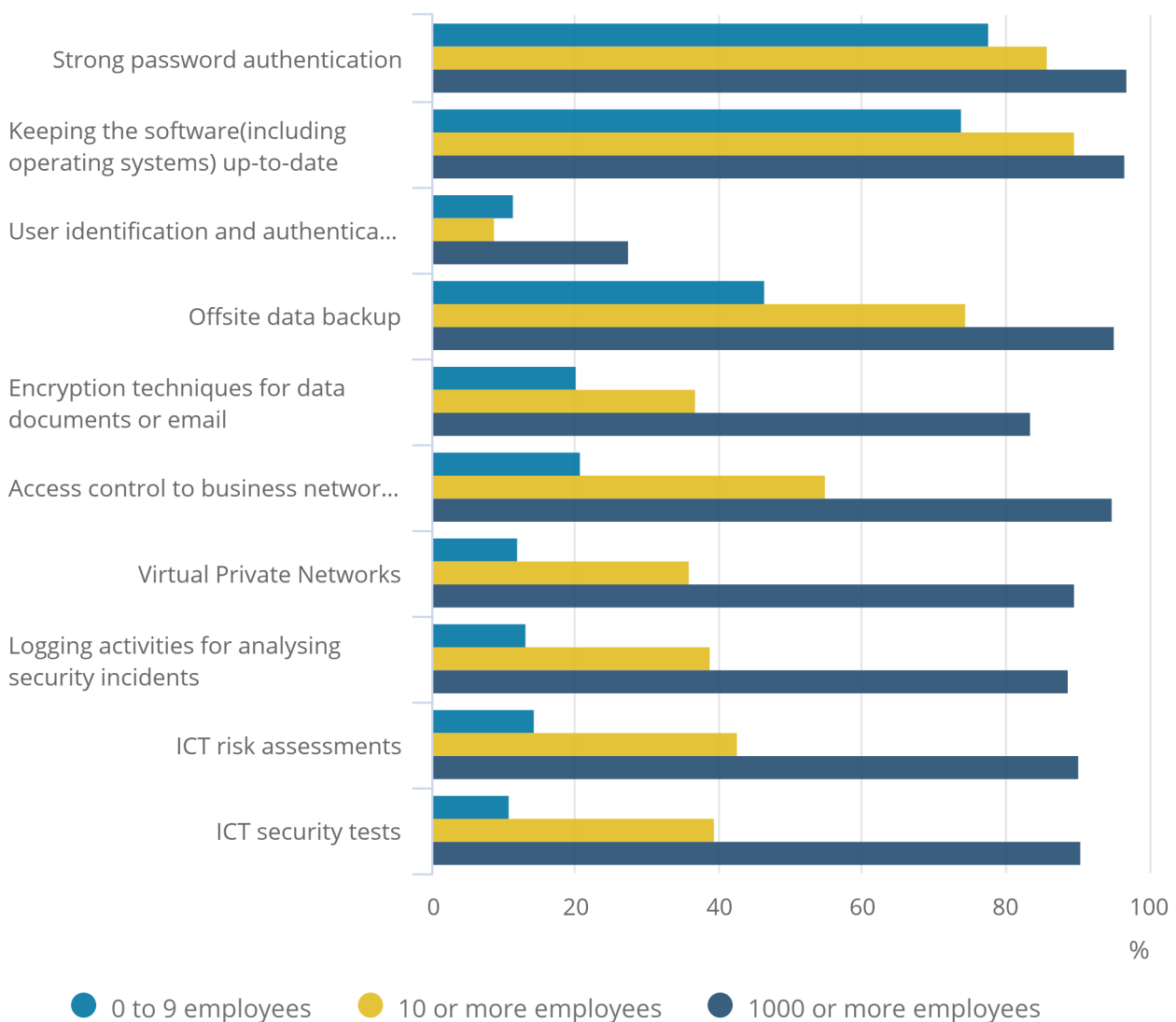
Figure 8 shows how different sized businesses have different levels of ICT security measures. Large businesses appear to use multiple security procedures, with most security measures being used by over 80% of businesses with 1,000 or more employees. The exception to this was identification or authorisation through biometric methods, with 27% of businesses with 1,000 or more employees using this security measure in 2018. In contrast, micro-enterprises usually limit their security measures to strong password authentication, up-to-date software and off-site data backups, with other types of security being far less common.

**Figure 8: While large businesses tend to use many ICT security measures, micro-enterprises tend to use fewer**

Proportion of UK businesses with ICT security measures, by size of business, 2018

**Figure 8: While large businesses tend to use many ICT security measures, micro-enterprises tend to use fewer**

Proportion of UK businesses with ICT security measures, by size of business, 2018



Source: Office for National Statistics – E-commerce survey of UK businesses

Questions on ICT security incidents were asked for the first time in the 2018 survey. In 2018, 2.6% of UK businesses encountered one of the measured security incidents, mainly unavailability of ICT services, with 1.9% of all UK businesses encountering this problem. Security incidents were encountered mostly by larger businesses, with 18.5% of businesses with 1,000 or more employees encountering incidents in comparison with just 2.2% of micro-enterprises. Security incidents resulting in the disclosure of confidential data were also experienced by 7.8% of businesses with 1,000 or more employees.

## 10 . What has changed in this release

This year, as described in [Things you need to know about this release](#), an online electronic questionnaire was introduced for the E-commerce Survey data collection, replacing the paper questionnaire previously used.

Some businesses that had responded to the 2017 survey saying that they did not have internet access were contacted again as part of an investigation into the impact of the electronic questionnaire. A small number of these indicated that their business did have internet access in 2017, thereby providing evidence that the new collection process has led to an improvement in the quality of the results in 2018.

The results affected by the electronic questionnaire change are mainly related to the results for percentage estimates of information and communication technology (ICT) use, for businesses with fewer than 10 employees. However, these are responsible for only a small amount of the total value of e-commerce sales. Therefore, there appears to have been little impact on the comparability of e-commerce sales values between 2017 and 2018. This is because any respondents that may have initially reported that they did not have internet access in 2017 but in fact did have internet access are only likely to have conducted a minimal amount of e-commerce.

The electronic questionnaire appears to have had no noticeable impact on the results for businesses with 10 or more employees. Time series comparisons relating to proportions of businesses should mainly focus on businesses with 10 or more employees to avoid the discontinuity in the proportions seen for small businesses.

In the data tables associated with this release, those tables that are affected by the discontinuity show where there is a break in the series.

We are continuing to investigate the impact of the new electronic questionnaire on the 2018 survey results, and we will report progress with this at a later date.

## 11 . Links to related statistics

Statistics on adults who are recent and lapsed internet users and who have never used the internet are available in the [Internet users statistical bulletin](#).

Statistics on household internet access and how adults use the internet are available in the [Internet access - households and individuals statistical bulletin](#).

## 12 . Quality and methodology

The [E-commerce Quality and Methodology Information \(QMI\) report](#) contains important information on:

- the strengths and limitations of the data and how they compare with related data
- the uses and users of the data
- how the output was created
- the quality of the output including the accuracy of the data