This report presents the key findings from the 2017 Digital Economy Business Survey.

The Scottish Government, in partnership with Scottish Enterprise, Highlands and Islands Enterprise and Skills Development Scotland, commissioned Ipsos MORI to carry out a Digital Economy Business Survey in the autumn of 2017.

The aim of this survey was to provide an update to the 2014 Digital Economy Business Survey, to assess how the level of digitisation amongst Scottish businesses has evolved over time, and to provide insight into new areas of focus.
Digital Economy Business Survey 2017

97% of businesses have an internet connection

Adoption of key technologies:
- Mobile internet and technologies: 73%
- Website: 72%
- Social media: 66%
- Data analytics: 40%
- Cloud computing: 38%
- Management software: 18%
- Collaborative online platforms: 7%
- None: 6%

1 in 2 state that using management software increases efficiency

3 in 10 businesses sell their goods or services online

1 in 4 businesses are fully equipped with digital technology skills

3 in 10 businesses are fully equipped to deal with cyber security threats
Introduction

Scotland’s refreshed Digital Strategy, Realising Scotland’s Full Potential in a Digital World, published in March 2017, sets out the Scottish Government’s vision for Scotland as a vibrant, inclusive, open and outward looking digital nation. Key to achieving these ambitions is supporting the development of internationally competitive, digitally mature businesses across all sectors of the Scottish economy and a workforce that has the digital skills required to support continued growth.

As part of Scotland’s Digital Strategy, the Scottish Government and its agency partners committed to monitoring developments in the level of digitisation amongst Scottish businesses, and to measure changes in digital maturity.

The previous Digital Economy Business Survey was conducted in 2014 with the purpose of providing a baseline understanding on the level of digitisation of Scotland’s businesses, allowing for benchmarking and progress to be measured over time.

In order to assess digital progress amongst Scottish businesses since the baseline survey in 2014, the Scottish Government, together with its partners Scottish Enterprise, Highlands and Islands Enterprise and Skills Development Scotland, commissioned Ipsos MORI to carry out the 2017 Digital Economy Business Survey in the autumn of 2017.

The purpose of the 2017 Digital Economy Business Survey was to:

- Track how Scottish businesses have evolved in relation to digital adoption, usage, exploitation and skills, since the baseline survey in 2014;
- Provide an insight into the areas businesses may require extra support to improve their adoption and exploitation of digital technology; and
- Provide an insight into new areas of focus, such as cyber security and the collaborative economy.

This report presents the high-level results from the survey. Comprehensive results from the survey, including breakdowns by firm size and sector, are available in the accompanying web tables which can be found at: www.gov.scot/digital

Key findings from the survey

- **Internet connection**: 97 per cent of businesses had an internet connection, up from 94 per cent in 2014. 28 per cent of business with internet had a fibre optic connection, up from 11 per cent in 2014.

- **Adoption of technologies**: As in 2014, the most widely adopted digital technologies were making use of mobile technologies (73 per cent), having a company website (72 per cent), and using social media (66 per cent). Social media and cloud computing saw the greatest increases in use from 2014.
• **Collaborative economy**: 7 per cent of businesses made use of online collaborative platforms, such as Airbnb or Uber. 3 per cent of businesses operated as an online collaborative platform.

• **Importance of specific technologies**: 29 per cent of businesses using mobile internet and technologies, and 28 per cent of businesses using cloud computing, considered those technologies as central to the operation of the business.

• **Reasons for not using technologies**: 6 per cent of businesses used none of the listed digital technologies, down from 10 per cent in 2014. Irrelevance of the technology to the business was the most common reason for not using any of the listed technologies (68 per cent).

• **Benefits of using technologies**: The perceived benefits from making use of digital technologies were similar to those cited in 2014. Benefits range from:
  o Technologies generating exposure of the company and that it has increased responsiveness to customers (website and social media); to
  o allowing for greater flexibility and remote working (mobile internet and technologies and cloud computing); and
  o better advertising (data analytics) and increased efficiency (management software).

• **Skills in the workforce**: 26 per cent of businesses stated that their employees were fully equipped with the skills to meet the business’ digital technology needs, down from 37 per cent in 2014.

• **Skills development**: 34 per cent of businesses were taking action to develop their existing employees’ digital technology skills, up from 26 per cent in 2014. Only 5 per cent of businesses were aware of CodeClan, Scotland’s digital skills academy.

• **Cyber security skills**: 30 per cent of businesses felt that they were fully equipped with the relevant skills to protect against and deal with cyber security threats. 19 per cent felt poorly or not at all equipped to deal with cyber security threats.

• **Cyber security technology**: The most common technology used by businesses to improve their cyber resilience was anti-virus software (91 per cent). Other technologies being used included Data Loss Prevention (47 per cent) and content filtering (44 per cent).

• **Digital public services**: 51 per cent of businesses had engaged with public services online, down from 63 per cent in 2014.

• **Innovation**: Among businesses using digital technologies, 47 per cent stated that they have used the technologies to capture insights or feedback from customers, and 45 per cent had used them to research competitor products.
- **E-commerce**: 30 per cent of businesses made sales via e-commerce. Some of the steps being taken by businesses using e-commerce, in order to improve their online presence, included: search engine optimisation (58 per cent), PR activity (46 per cent), and digital marketing (35 per cent).

- **Internationalisation**: 24 per cent of businesses sold goods or services or licensed their products outside the UK, up from 18 per cent in 2014. 36 per cent of businesses selling online agreed that using e-commerce had increased the number of international markets they were able to export to.

- **Overall importance of digital technology to current operations**: Overall, 78 per cent of businesses stated that digital technologies are essential or important for the current operations of the business, up from 75 per cent in 2014.

- **Overall importance of digital technology to future growth**: Similarly, 78 per cent stated that digital technology was essential or important to the future growth or competitiveness of their business, up from 75 per cent in 2014.

- **Future use of digital technology**: 65 per cent of businesses hoped to develop or use a company website more over the next 12 months. 60 per cent hoped to extend their use of social media.

**Detailed survey methodology**

*Fieldwork approach*

The survey fieldwork was conducted between 11th September and 23rd October, using telephone interviewing. In total 3,258 businesses took part in the survey.

The interviews were targeted at the most relevant person in each business: for smaller business (less than 10 employees) interviews were carried out with the owner of the business; for larger businesses, interviews were carried out with the person responsible for making decisions about the IT systems in the business (Managing Director, IT Manager or equivalent). Sole traders were excluded from the survey.

*Survey sample*

The survey sample was sourced from the Experian business database and was stratified by sector and size to reflect the population of Scottish businesses as a whole. The survey sample included additional boost of 1,000 interviews within the Highlands and Islands, and of 250 interviews in the South of Scotland, to allow for further analysis of findings for these regions.

Quotas were set for recruitment and interviewing so that the achieved sample reflected the population of eligible organisations as defined by the Inter-
Departmental Business Register. Eligible organisations were defined by Standard Industrial Classification (SIC) code.

For all quotas, a 20% leeway was allowed for, meaning that a minimum of 80% of each quota had to be reached, but no more than 120% of each quota target could be achieved.

**Respondent profile**

The achieved sample was broadly representative of the population, notwithstanding some differential non-response due to differences in availability and willingness to participate. Weighting was applied to correct the distribution of sectors and size categories to match the sample counts.

The profile of respondents by area, sector and size is shown below:

**Sample profile by region, sector and size**

<table>
<thead>
<tr>
<th>Region</th>
<th>Proportion of total (weighted %)</th>
<th>Number of respondents (unweighted)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highlands and Islands</td>
<td>13</td>
<td>1,209</td>
</tr>
<tr>
<td>South of Scotland</td>
<td>7</td>
<td>408</td>
</tr>
<tr>
<td>Rest of Scotland</td>
<td>80</td>
<td>1,641</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td><strong>3,258</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sector</th>
<th>Proportion of total (weighted %)</th>
<th>Number of respondents (unweighted)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>16</td>
<td>425</td>
</tr>
<tr>
<td>Business activities</td>
<td>26</td>
<td>915</td>
</tr>
<tr>
<td>Construction</td>
<td>11</td>
<td>276</td>
</tr>
<tr>
<td>Health / Social Work</td>
<td>4</td>
<td>141</td>
</tr>
<tr>
<td>Hotels / restaurants</td>
<td>8</td>
<td>288</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>5</td>
<td>178</td>
</tr>
<tr>
<td>Other services</td>
<td>8</td>
<td>248</td>
</tr>
<tr>
<td>Transport / Communications</td>
<td>8</td>
<td>266</td>
</tr>
<tr>
<td>Wholesale / retail</td>
<td>15</td>
<td>521</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td><strong>3,258</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employees</th>
<th>Proportion of total (weighted %)</th>
<th>Number of respondents (unweighted)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-9</td>
<td>78</td>
<td>2,526</td>
</tr>
<tr>
<td>10-49</td>
<td>14</td>
<td>461</td>
</tr>
<tr>
<td>50-249</td>
<td>3</td>
<td>159</td>
</tr>
<tr>
<td>250+</td>
<td>5</td>
<td>112</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td><strong>3,258</strong></td>
</tr>
</tbody>
</table>
Quality broadband and mobile infrastructure is of increasing and central importance to Scotland’s economy, enhancing productivity and driving innovation in Scotland’s businesses, especially in its more remote and rural areas. The Scottish Government’s refreshed Digital Strategy - [Realising Scotland’s full potential in a digital world: a digital strategy for Scotland](#) - sets out the vision for Scotland as a vibrant, inclusive, open and outward looking digital nation to ensure that it continues to prosper in an increasingly connected and competitive world.

This section looks at the take up of standard and next generation broadband among businesses in Scotland, and the reasons why businesses without internet access are not connected.
Internet take up (see Figure 1)

- In total, 97 per cent of businesses surveyed in 2017 had an internet connection, compared to 94 per cent of businesses surveyed in 2014.

- Among businesses with an internet connection, the most common type of connection was Broadband via telephone line (65 per cent)

- Fibre optic broadband connections showed the biggest increase in take up, rising from 11 per cent of businesses with an internet connection in 2014, to 28 per cent in 2017.

- Among businesses that had internet access, around one quarter (26 per cent) stated that they were fairly or very likely to improve their connection in the next 12 months. Around two-thirds (65 per cent) were fairly or very unlikely to do so.

Businesses with no internet connection

- Among those businesses that did not have an internet connection (3 per cent), only 19 per cent were very or fairly likely to get an internet connection over the next 12 months, if it were available. 77 per cent were very or fairly unlikely to get an internet connection. These findings matched closely to those in the 2014 survey.

- Among those that were unlikely to get an internet connection, the most commonly cited reason was that there was no business need (65 per cent). Other reasons included that the business owners were due to retire soon, and a lack of interest in obtaining an internet connection.
ADOPTION OF KEY TECHNOLOGIES

Digital technologies are widely recognised as enablers of productivity and drivers of innovation and international trade. They underpin business growth across every sector of the economy and can enhance productivity, allowing for time savings and resources to be freed up and used elsewhere.

This section outlines businesses’ adoption of some of the most common digital technologies, including mobile internet, cloud computing, social networking and data analytics. It also details the benefits businesses experience from using digital technology, and cites the most common reasons why some businesses do not make use of digital technologies.
Usage of key digital technologies (see Figure 2)

- The most widely adopted digital technologies were making use of mobile internet and technologies\(^1\) (73 per cent) and having a company website (72 per cent).

- The technologies that saw the greatest increase in use between 2014 and 2017 were social media (from 53 per cent to 66 per cent of businesses) and cloud computing (from 27 to 38 per cent).

- The only technology not to increase in use between 2014 and 2017 was having a company website, which went from 73 per cent to 72 per cent of businesses.

- 7 per cent of businesses surveyed in 2017 made use of online collaborative platforms, such as Airbnb or Uber.\(^2\) 3 per cent of all businesses operated as an online collaborative platform.

- Of those businesses using cloud computing services, 61 per cent used email over a cloud computing service, and 60 per cent used office software such as word processors or spreadsheets.

- 6 per cent of businesses did not use of any of the listed technologies, compared to 10 per cent of businesses surveyed in 2014.

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\(^1\) Includes mobile broadband connection via portable devices (e.g. tethering to mobile 3G or 4G networks); portable computers using mobile phone networks (e.g. laptops with inbuilt 3G or 4G) and other portable devices such as smartphones or tablets.

\(^2\) This option was not listed in the 2014 survey, and so no comparisons are available.
Benefits of using specific digital technologies (see Figure 3)

- Overall, the perceived benefits of using specific digital technologies were similar to those reported in the 2014 survey.

- The most commonly cited benefit of having a website and using social media was that it generated exposure for the organisation (78 per cent and 64 per cent respectively stated this).

- 14 per cent of businesses using social media stated that they experienced no benefits at all, a decrease from 18 per cent in 2014.
• Of businesses using mobile technologies, 53 per cent stated employees being able to work remotely as a benefit, while 27 per cent stated that they benefited from increased efficiency as a result of using mobile technologies.

• 48 per cent of businesses using cloud computing stated that they benefited from this technology as it allows data to be accessed remotely, while 23 per cent stated that using cloud computing offered improved security.

• More accurate and targeted marketing was the most frequently cited benefit among data analytics users (34 per cent). 49 per cent of businesses using management software stated that they benefited from increased efficiency from using the software, up from 31 per cent of users in 2014.

Use of digital technologies to guide development of the business

• Of those businesses using at least one of the digital technologies listed in Figure 3, 47 per cent made use of these to capture insights or feedback from customers – up from 35 per cent in 2014.

• Other methods of using digital technologies to guide the development of the business included: Researching competitor products (45 per cent), researching and gathering market data (40 per cent), capturing insights about markets and territories that the business sells to or plans to sell to (40 per cent), and capturing insights about suppliers (33 per cent).

• 23 per cent of businesses using any of the listed technologies had a specific plan or strategy for its use of digital technology in delivering the business, up from 18 per cent in 2014.

Figure 4: How integral the use of specific digital technologies is to the business (%)
Respondents were asked to rate how important each technology they used is to their business on a scale of 1 to 10. 1 = it makes little difference to the business if the technology is not used; and 10 = it is a central part of how the business operates.

<table>
<thead>
<tr>
<th>Importance</th>
<th>Company Website</th>
<th>Social Media</th>
<th>Mobile Internet &amp; Technologies</th>
<th>Cloud Computing</th>
<th>Data Analytics</th>
<th>Management software</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – of little importance</td>
<td>10%</td>
<td>11%</td>
<td>5%</td>
<td>4%</td>
<td>8%</td>
<td>4%</td>
</tr>
<tr>
<td>2</td>
<td>5%</td>
<td>7%</td>
<td>4%</td>
<td>4%</td>
<td>5%</td>
<td>4%</td>
</tr>
<tr>
<td>3</td>
<td>9%</td>
<td>9%</td>
<td>3%</td>
<td>4%</td>
<td>8%</td>
<td>4%</td>
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<tr>
<td>4</td>
<td>7%</td>
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<td>5</td>
<td>15%</td>
<td>14%</td>
<td>11%</td>
<td>10%</td>
<td>18%</td>
<td>12%</td>
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<tr>
<td>6</td>
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<td>16%</td>
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<td>13%</td>
<td>16%</td>
</tr>
<tr>
<td>9</td>
<td>4%</td>
<td>4%</td>
<td>9%</td>
<td>9%</td>
<td>4%</td>
<td>11%</td>
</tr>
<tr>
<td>10 – Central part of business</td>
<td>21%</td>
<td>12%</td>
<td>29%</td>
<td>28%</td>
<td>9%</td>
<td>19%</td>
</tr>
</tbody>
</table>

Base: All respondents using each technology (min = 510)
Importance of digital technology *(see Figure 4)*

- Businesses using mobile internet and technologies and cloud computing were most likely to rate these technologies as central to the way the business operates (i.e. giving it a score of ten).

- For each of the listed technologies, businesses were more likely to consider their use as central to their operation in 2017 than in 2014, with the exception of management software and data analytics.

- Cloud computing was the technology to show the greatest increase in the share of businesses who considered it as central to their operation, rising from 16 per cent of users in 2014 to 28 per cent in 2017.

- More generally, when asked about the overall importance of digital technology to the current operations of the business, 30 per cent of businesses responded that it was essential, compared to 29 per cent in 2014. Just under half (47 per cent) stated that digital technology was either important or very important, while 22 per cent stated that it was not important or not at all important (25 per cent in 2014).

**Reasons for not using digital technologies**

- 6 per cent of businesses used none of the listed technologies. The most commonly cited reason for not using any of the listed technologies was that the technology in question was not relevant to the business (68 per cent).

- Other reasons for not using any of the listed technologies included: the business is not suited to using these technologies; lack of skills/understanding; and that the business was too small.
SKILLS

The refreshed Digital Strategy identifies that Digital skills are fundamental to the life chances of our people and the economic success of our country. Digital skills sit alongside literacy, numeracy and health and wellbeing as the essential platforms for lifelong learning. These skills are required to study almost every subject at school, in further and higher education and training, and in a growing number of roles in the workplace.

For Scottish businesses to be able to fully exploit the opportunities offered by digital technologies to drive growth, improve productivity and stimulate innovation it is essential that the current and future workforce have the skills and confidence to do so.

This section looks at the extent to which the digital skills required by businesses are readily available in the workforce.
Not applicable – we do not require these skills

Digital skills of the workforce (see Figure 5)

- 26 per cent of all businesses stated that their existing staff were fully equipped in terms of skills to meet the business’ digital technology needs, a decrease from 37 per cent of businesses surveyed in 2014.

- Almost half (48 per cent) stated that they were well equipped but with some skills gaps (40 per cent in 2014).

- 19 per cent stated that they had considerable skills gaps, an increase from 16 per cent in 2014.

Type and impact of digital skills gaps

- 35 per cent of businesses with digital skills gaps were lacking technical skills, including: software skills (22 per cent) and web development skills (10 per cent).

- 15 per cent were lacking business and commercial skills, including: digital marketing (7 per cent) and cyber security skills (3 per cent).

- 56 per cent either lacked a skill that was not listed or did not know which type of skills they were missing. Compared to 2014, businesses were much less certain in 2017 about the specific digital skills gaps that they faced.

- When asked what areas have been affected by their employees’ digital skills gaps, the most cited answer was that it prevented the business from fully adopting and exploiting the latest methods and technologies (10 per cent and 9 per cent respectively). 7 per cent also stated that digital skills gaps were impacting on the business’ ability to sell products or services over the internet.
Training and recruitment (see Figure 6)

- 34 per cent of businesses stated that they are doing something to develop their current employees’ digital technology skills, compared to 26 per cent in 2014. 19 per cent stated that they are planning to do this in the future.

- 45 per cent stated that they were not currently taking action to develop their employees’ digital skills and had no plans to do so in the future, a decrease from 54 per cent in 2014.

- 22 per cent of respondents stated that they had not faced any problems in recruiting or retaining digital technology specialists in the past 12 months, while 3 per cent had found some difficulty in finding or keeping candidates with the right skills or the right experience. 72 per cent had not recruited.

- Of those organisations facing recruitment difficulties, 13 per cent stated that they would look to overcome their skills shortage by recruiting from abroad, and 5 per cent planned to train or retrain existing staff.

- Regarding digital training opportunities available in Scotland, only 5 per cent of all businesses surveyed were aware of CodeClan³ – Scotland’s digital skills academy.

³ https://codeclan.com/
Digital technologies bring enormous opportunities for businesses, but they also bring new threats and vulnerabilities that we must manage safely. The National Crime Agency describes the cyber threat as a “major and growing threat” to businesses. It assesses that the cost of cybercrime to the UK economy is billions of pounds per annum, and that the accelerating pace of technology and criminal cyber capability development currently outpaces our collective response to cybercrime.

Scotland’s Digital Strategy makes clear that businesses operating in the online world must view cyber resilience as a fundamental enabler to their digital ambitions. Scotland’s cyber resilience strategy, “Safe, Secure and Prosperous: A Cyber Resilience Strategy for Scotland”, published in 2015, sets an ambition for Scotland to become a world leading nation in cyber resilience by 2020, with a global reputation for being a secure place to work, learn and do business.

The Programme for Government in September 2017 sets out a commitment to develop and implement a range of action plans in respect of cyber resilience for the public, private and third sectors, as well as for learning and skills and for economic opportunity.

This section looks at the extent to which the cyber security skills required by business are readily available in the workplace, and the technical controls and accreditation that are in place within businesses to ensure they are digitally secure.

Cyber-security skills (see Figure 7)

- Amongst all organisations surveyed, 49 per cent were responsible for managing their own IT infrastructure and systems, while 34 per cent did not manage any of their own IT infrastructure and systems.
- 30 per cent felt that they were fully equipped with the relevant skills to protect against and deal with cyber security threats.
- 19 per cent of businesses felt that they were poorly, or not at all, equipped with the relevant skills to protect against and deal with cyber security threats.

Figure 8: Technical controls applied by businesses (%)

- Malware protection: 87%
- Boundary firewalls: 73%
- Access control: 67%
- Secure configuration: 64%
- Patch management: 51%
Technical controls and Cyber-security accreditation (see Figure 8)

- Regarding some of the technical controls that organisations can put into place to help manage their cyber security, 87 per cent of businesses made use of malware protection (i.e. anti-virus software) and 73 per cent used boundary firewalls (i.e. preventing unauthorised access).
- 51 per cent of organisations used patch management to improve cyber security (i.e. updating software).
- 10 per cent of businesses had obtained a cyber-security accreditation, such as Cyber Essentials or Cyber Essentials Plus.
- Amongst those who did not have a cyber-security accreditation, only 8 per cent were planning to obtain accreditation in the next 12 months.

Specific cyber-security technologies (see Figure 9)

- The most commonly used cyber-security technology was anti-virus software, which was used by over 9 in 10 businesses (91 per cent).
- 47 per cent made use of Data Loss Prevention technologies, while 44 per cent filtered content such as web pages and e-mails.
- The least commonly adopted cyber-security technologies were sandboxing (i.e. isolating applications from other programs and resources; 8 per cent), and behavioural analysis (9 per cent).
- 6 per cent of businesses made no use of any of the cyber-security technologies listed in Figure 9.
The Scottish Government works with the wider Scottish public sector and the Scottish digital technologies industry to deliver our digital vision for Scotland.

The refreshed digital strategy Realising Scotland’s full potential in a digital world: A Digital Strategy for Scotland describes the actions the Scottish Government and partners will take to create digital public services based around the needs of users (including businesses) to make the public sector more efficient. Actions to achieve this include introducing shared technology platforms, starting with common approaches to publishing information, applying for services, and making and receiving payments. Mygov.scot is a single point of entry for information about Scotland’s public services for citizens and businesses which aims to ensure that businesses can deal digitally with the public sector in an effective and efficient manner, allowing time and money savings to be made. The aim is to extend the use of mygov.scot across the wider Scottish public sector.

This section looks at how businesses use Scottish public sector websites.
Business use of digital public services

- Overall, fewer businesses had engaged with public services online in 2017 (51 per cent) than in 2014 (63 per cent).
- The most commonly performed activity was ‘obtaining or reading information’ (35 per cent of businesses). This was also the activity that showed the greatest decline in use, having fallen from 49 per cent in 2014.
- 25 per cent of businesses had carried out a transaction digitally, a slight decrease from 27 per cent of businesses surveyed in 2014.

Business use of mygov.scot

- 34 per cent of businesses had used mygov.scot – Scotland’s online public services portal – for business purposes over the past 12 months.
- The most commonly cited reasons for using mygov.scot included: finding information or advice (60 per cent) and applying for a service or entitlement (18 per cent).

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5 I.e. Scottish Government, Scottish local authority or Scottish Government agencies.
E-COMMERCE AND EXPORTING

The internet and digital technologies enable businesses of any size in any location to access global markets. This creates opportunity for businesses to trade not just with local markets but with the world.

Effective use of digital technologies, including ecommerce platforms, tailoring company websites to international markets and using digital marketing and social media, can enable businesses across all sectors to easily reach these markets and increase their export potential.

The following section looks at the extent to which businesses in Scotland engage in ecommerce, and how it is used to enhance their sales outside the UK.
Business use of e-commerce (see Figure 11)

- Overall, 30 per cent of businesses surveyed in 2017 made sales via e-commerce.

- 15 per cent of businesses made up to one fifth of their sales via e-commerce, while 1 per cent of businesses made all of their sales via e-commerce.

- When asked how sales via e-commerce had changed compared to 2-3 years ago, 17 per cent of businesses noted that they had increased. 75 per cent of businesses were making a similar proportion of their sales via e-commerce compared to 2-3 years previously, and 2 per cent were making a smaller proportion of their sales via e-commerce.

- Thinking about the future, 40 per cent of businesses expected to make sales via e-commerce over the next 2-3 years.

- The most common reason for not engaging in e-commerce was that it was not relevant to the business (81 per cent).
Figure 12: Steps being taken to maximise digital presence and support e-commerce activity (%)

**Base: All businesses using e-commerce (1,006)**

<table>
<thead>
<tr>
<th>Step</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search engine optimisation</td>
<td>58%</td>
</tr>
<tr>
<td>Engaging in PR activity</td>
<td>46%</td>
</tr>
<tr>
<td>Using a breadth of digital marketing platforms</td>
<td>35%</td>
</tr>
<tr>
<td>Collaborating with other business to lower costs</td>
<td>33%</td>
</tr>
<tr>
<td>None/nothing</td>
<td>21%</td>
</tr>
</tbody>
</table>

E-commerce tools and methods *(see Figure 12)*

- The most common action being taken by businesses using e-commerce to maximise their digital presence and support e-commerce activity was search engine optimisation (58 per cent). 46 per cent of businesses using e-commerce engaged in PR activity, and 35 per cent used digital marketing platforms.
- 21 per cent of businesses using e-commerce had not taken any steps to maximise their digital presence.
- Of those businesses that used e-commerce, the most common way of making sales was through the business’ own website (74 per cent). 29 per cent made sales through digital marketplaces or platforms (e.g. Amazon, eBay), and 4 per cent made use of other specialist or industry-specific websites.

Destination of sales made by Scottish businesses

- Of all businesses surveyed in 2017, 95 per cent sold their goods or services in Scotland, and 44 per cent made sales to the rest of the UK. 24 per cent sold their goods or services to markets outside of the UK, an increase from 18 per cent in 2014.
- Amongst businesses who operate in more than one market, 63 per cent made the majority of their sales in Scotland. 12 per cent stated that the majority of their sales were made to destinations outside of the UK.
- Amongst businesses that did not already operate outside the UK, only 7 per cent were very or fairly likely to start exporting internationally in the next 12 months.
Digital technology and internationalisation

- 26 per cent of exporting businesses who used their own website for e-commerce had tailored their website for different international markets (e.g. offering different language options or product ranges), a drop from 32% in 2014.

- Of those businesses that used e-commerce, 36 per cent either strongly or slightly agreed with the statement that using e-commerce had increased the number of international markets they were able to export to. 23 per cent strongly disagreed with the statement.

- A variety of challenges were perceived by businesses using e-commerce that would affect their ability to deliver international e-commerce services, including: Logistics/reverse logistics (6 per cent); customs or other regulations (5 per cent); costs, including shipping/postage costs (4 per cent); and having the appropriate technical infrastructure in place (3 per cent).
This final section presents businesses’ future ambitions in their use of digital technologies, including the importance they attach to the use of digital technologies to the future growth of their business, and their wish to further develop the usage of technology.
Importance of digital technology in the future (see Figure 13)

- Overall, a greater share of businesses stated that digital technology was important to their future growth or competitiveness compared to those surveyed in 2014.

- 31 per cent of businesses stated that digital technology was essential, and 47 per cent stated that it was important or very important, to the future competitiveness or growth of their business.

- 20 per cent did not think digital technology was important to the future of their business, compared to 24 per cent in 2014.

Figure 14: Proportion of businesses stating that they hope to develop or use more of the following digital technologies over the next 12 months (%)
Future use of digital technology (see Figure 14)

- 65 per cent of all businesses hoped to develop or increase their usage of a company website over the next 12 months. Of those businesses that already have a company website, 78 per cent were hoping to develop or use it more.

- 60 per cent of all businesses hoped to develop or increase their usage of a social media over the next 12 months. Of those businesses that already make use of social media, 79 per cent were hoping to develop or use it more.

- Only 27 per cent of all businesses hoped to make more use of business, management or efficiency software, while 60 per cent of those already using this technology hoped to use it more over the next 12 months.

Expectations of future sales over the internet

- 22 per cent of businesses expected internet sales to make up 20 per cent or more of their total sales over the next 2-3 years (15 per cent made this proportion of their sales online at the time of the survey). Two per cent expected to sell all their products and/or services via the internet over the next 2-3 years.

- Over half (54 per cent) stated that they expected to make no sales via the internet over the next 2-3 years.