

Article

The feasibility of measuring the sharing economy: progress update

An update on the work undertaken by the Office for National Statistics so far on assessing the feasibility of measuring the sharing economy in the UK.

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1 . Executive summary

This report provides an update on the progress made by the Office for National Statistics (ONS) in assessing the feasibility of measuring the sharing economy in the UK. This follows our previous [report](#) published in April 2016 which outlined 6 action points to be taken forward. These include pursuing data collection options such as surveys, administrative data and big data, and working closely with stakeholders to agree a definition and statistical coverage. As well as progress, this report also outlines future plans for work in this area.

We are actively engaging with the [Sharing Economy UK](#) (SEUK) trade body, government departments and EU member states to agree a definition of the sharing economy for use in the collection, production and dissemination of official statistics. We have attempted to categorise different types of sharing economy activities into 3 broad groups:

- property rental and access
- peer-to-peer services
- collaborative finance

These groupings are a useful starting point but are not comprehensive and will be amended based on further stakeholder feedback. We have also identified 2 overarching research questions which we will be taking forward – each with differing stakeholders and policy implications, they are:

- what is the value of the sharing economy?
- how is the sharing economy impacting on the labour market?

To pursue the collection of survey data on the sharing economy we are introducing new questions on both the Internet Access Survey for households and individuals, and the E-commerce Survey for businesses. These questions will provide data on the proportion of adults and the proportion of businesses, that have arranged accommodation or transport services via platforms such as Airbnb, SpareRoom, Uber and Lyft. These data will provide important indicators on the prevalence and growth of these activities.

Additionally, in order to increase the amount of information and number of variables we collect from sharing economy platforms themselves, we will be sampling many of these businesses in at least one ONS survey for the next available reference period. This additional information will greatly improve our understanding of this sector, including the characteristics of such businesses. This should then enable us to identify further sharing economy platforms, both manually and where possible by applying data science techniques to the Inter-Departmental Business Register (IDBR).

We are pursuing obtaining access to data from sharing economy businesses either directly from their accounts, or their websites via application programming interfaces (APIs) or web scraping. We are also investigating other administrative data sources, such as self-assessment tax returns from Her Majesty's Revenue and Customs (HMRC) which could be used to inform sharing economy estimates. We are committed to working closely with sharing economy businesses in order to interpret these data sources and better understand their business models and structures.

These developments will be discussed in more detail throughout this report and we will continue to update stakeholders as the project progresses, with the first estimates relating to individuals' use of sharing economy platforms to arrange accommodation or transport services due to be published in August 2017.

2 . Introduction

2.1 Purpose

The purpose of this report is to provide an update on the progress made by the Office for National Statistics (ONS) so far in assessing the feasibility of measuring the sharing economy. This follows a previous [report](#) published in April 2016 which outlined the following 6 action points to be taken forward:

1. undertake further work to establish an agreed definition of the sharing economy and define the coverage of the statistics
2. identify existing surveys where additional questions on the sharing economy could potentially be asked
3. continue to engage at a European level and ensure that ONS keeps pace with international best practice
4. work with sharing economy businesses to gain access to administrative data and also understand how these businesses are structured
5. utilise information such as turnover, employment, establishment dates and industry classifications to identify further sharing economy businesses
6. carry out further research to investigate the potential of obtaining data from sharing economy websites including web scraping, APIs and/or negotiated access to data relevant for statistical purposes

This report will provide progress updates against each of the 6 action points in turn, before concluding with plans for future work and important dates for subsequent updates, including the publication of initial sharing economy statistics.

2.2 Background

The outcome of our initial feasibility study into measuring the sharing economy was published in April 2016. This contributed to the growing field of literature on the topic which included influential articles from experts such as Debbie Woskow ([November 2014](#)), Professor Diane Coyle ([January 2016](#)) and the charity Nesta ([September 2014](#)). Other government departments such as the Department for Business, Energy and Industrial Strategy (BEIS) have also been prominent contributors to work in this area.

The sharing economy was brought to the forefront of ONS's agenda following recommendations outlined in Professor Sir Charles Bean's Independent Review of Economic Statistics published in [March 2016](#). Since then stakeholder interest has continued to develop at pace both nationally and internationally, with increasing demand for official statistics on the sharing economy from policy makers, industry experts and trade bodies.

It is important to note that sharing economy activity is largely captured within existing official statistics, such as gross domestic product (GDP) and labour market statistics but there is now a greater need and demand for standalone statistics on the sharing economy. An important use of these statistics will be to inform government policy such as those to promote growth and provide protection to those involved in this emerging sector.

New literature on the size, growth and prominence of the sharing economy is published frequently by a range of different organisations. Articles of particular relevance include the European Commission's paper on a European agenda for the collaborative economy ([June 2016](#)) and the closely linked assessment by PricewaterhouseCoopers (PwC) of the size and prominence of the collaborative economy in Europe ([April 2016](#)). For example, PwC estimate that there are over 275 collaborative platforms founded in Europe, generating revenues of nearly €4 billion and facilitating transactions of €28 billion in 2015.

Many of the reports suggest that the UK is one of the leading countries in terms of sharing economy activity, particularly since the introduction of the world's first "sharing economy tax break" was announced in the March 2016 Budget, for implementation in 2017. PwC's report, for example, suggests that the UK is leading the way in Europe in terms of alternative finance platforms and is establishing itself as a hub for innovation in the sharing economy, arguably making the need for the UK to be measuring this sector even more pertinent.

3 . Definitions and statistical coverage

Action point 1: "ONS should undertake further work to establish an agreed definition of the sharing economy and define the coverage of the statistics":

- conducting literature reviews to identify definitions
- collaborating with stakeholders from across government and internationally, as well as SEUK members to establish an agreed definition
- designing statistical coverage to meet stakeholder needs

3.1 Definitions

To inform the process of establishing a definition of the sharing economy, we have conducted a literature review to identify existing definitions. This identified a growing number of definitions and terms being used to refer to platforms such as Airbnb, TaskRabbit, Hassle and Vrumi. For example, internationally, the European Commission refers to the sharing economy as the "collaborative economy". Other terms growing in popularity include "gig economy", which is typically used when referring to the impact of the sharing economy on the labour market where increasing numbers of individuals are stringing together jobs – so-called "gigs" – with these platforms acting as intermediaries but not employing these individuals directly.

The working definition of the sharing economy outlined in our previous report "activity that is facilitated by digital platforms which enable people or businesses to share property, resources, time and skills, allowing them to 'unlock' previously unused or under-used assets" can still be regarded as relevant but some organisations have attempted to develop this further. For example, according to a recent communication from the European Commission ([June 2016](#)), the collaborative economy refers to business models where activities are facilitated by platforms that create an open marketplace for the temporary usage of goods or services often provided by private individuals – these transactions generally do not involve a change of ownership and can be carried out for profit or not-for-profit. The points about the exchange being temporary and no change of ownership occurring are particularly relevant and are featured in a number of proposed definitions.

SEUK, the UK trade body for sharing economy businesses defines the sector as "using internet technologies to connect distributed groups of people and organisations to make better use of goods, services, capital and spaces, sharing access and so reducing the need for ownership". Again, SEUK has referenced the fact that ownership does not change, possibly why the term "sharing" has arisen.

The complexity of defining the sharing economy, illustrated by the plethora of alternative definitions, has led us to focus more on the characteristics of the "known" sharing economy businesses which have been identified in existing literature, to help us derive a list of criteria to identify and describe further sharing economy businesses. The U.S. Department of Commerce's paper ([June 2016](#)) attempted to develop a definitive list of characteristics held by "digital matching firms", which are as follows:

- use information technology to facilitate peer-to-peer transactions
- rely on user-based rating systems for quality control
- offer workers flexibility in deciding their typical working hours
- rely on workers to use their own tools and assets to provide a service

These are useful criteria, but as we move closer to arriving at a definition of the sharing economy for use in the collection, production and dissemination of official statistics, it is important to note that the application of any definition will involve subjectivity. For example, what happens if a business meets some but not all of the criteria? and how should we treat businesses that meet the criteria for some but not all of their business activity?

In addition to considering possible sharing economy criteria, we are also exploring ways in which we can categorise different types of sharing economy activities. By grouping all sharing economy businesses together and attempting to measure them as one sector, we may be complicating the process, particularly when trying to arrive at an applicable definition as so many exceptions and different business models exist. Therefore, when conducting our initial discovery work we identified 3 broad categories of sharing economy activities, which are outlined in Table 1. These categories are not comprehensive and intended only as a starting point for discussions with stakeholders. They will be developed and amended accordingly as we receive feedback and our understanding of this sector increases.

Table 1: Categories of sharing economy activities

Category:	Examples of activities:
Property rental and access	Accommodation, parking spaces, storage space, vehicles (without a driver), tools
Peer-to-Peer services	Transportation, delivery, household services, professional services
Collaborative finance	Crowdfunding, peer-to-peer lending, investment, money transfer and exchange

Source: Office for National Statistics

In addition to these 3 broad categories, there are also a number of peer-to-peer marketplaces and auction sites which support transactions between individuals. However, there is much debate about whether these sites constitute sharing economy activity, particularly as they also support more traditional business-to-consumer transactions and involve a change of ownership between individuals. For the purpose of our analyses we are separating these sites from other platforms, but not discarding them completely as understanding the intricacies of such sites will help us in producing a more relevant and applicable definition.

Furthermore, we are not currently in a position to conclusively say whether a business is in the sharing economy or not, with the line between the sharing economy and the rest of the economy becoming increasingly blurred. Our aim is, therefore, to build on our initial discovery work to come up with guidelines for what types of businesses are included, or not. To do this we are actively engaging with stakeholders from across government and internationally, as well as SEUK.

3.2 Statistical coverage

When considering the coverage of any official statistics on the sharing economy, our initial feasibility study addressed the overall objective of “measuring the sharing economy”, since then, however, 2 broad research questions have emerged – each with differing stakeholders and policy implications, they are:

- what is the value of the sharing economy?
- how is the sharing economy impacting on the labour market?

ONS's role is to inform public debate and produce statistics which accurately reflect society and the economy, therefore we will pursue both of these research areas going forward. The way in which we address these 2 broad research questions may involve differing approaches and methodology. The 2 areas are undoubtedly interlinked and will be discussed throughout this report.

To produce estimates of the value of the sharing economy, we will need to collect data on the value of the turnover generated by sharing economy businesses and the value of transactions that occur on their platforms. There are many approaches that we could adopt in order to obtain these data and it is unlikely that one approach or source of data will provide all of the information required. So when considering the first research question – the value of the sharing economy – our initial strategy will be to focus on the platforms themselves. This may involve sampling them directly in some of our established business surveys such as the Annual Business Survey, or contacting them in pursuit of administrative data or permission for us to web scrape data directly from their websites.

It is clear, however, that in order to fully answer this research question we must engage with these platforms to understand their business models and structures, in order for us to correctly interpret any data we collect. There may also be differences between the 3 groups of sharing economy activities that we have identified in Table 1 which we will need to recognise in order to produce an overall estimate of the sharing economy.

Additionally, we will need to devise a robust method for estimating for businesses that we are unable to collect data from in order to produce a representative estimate of the whole sharing economy.

For the second research question – the impact of the sharing economy on the labour market – our primary focus will be on individuals who are working in the sharing economy. This could be as full-time workers, or part-time to supplement existing incomes. There are a number of ways in which we are planning to capture this information.

Firstly, if we can work closely with sharing economy businesses we may be able to gather information directly from them regarding the number of people finding work through their platforms, including frequency and value of earnings. We are also pursuing gaining access to self-assessment tax returns, which could be used to give an indication of the number of self-employed workers within the sharing economy. It is important to note that we recognise that obtaining access to personal data such as earnings may raise concerns around security and privacy. However, ONS are legally and ethically bound by strict data protection laws to protect the anonymity of such individuals and businesses. Finally, we are reviewing potential options to directly survey individuals to estimate the number of people working within the sharing economy, as well as other variables such as earnings, frequency and hours worked.

These research questions and different approaches are outlined in Table 2.

Table 2: Data requirements and potential collection methods

Data required:	Collect from platforms:	Collect from individuals:
Turnover of sharing economy platforms	<ul style="list-style-type: none"> · Responses to existing ONS business surveys · Administrative data 	
Value of transactions on platforms	<ul style="list-style-type: none"> · Data from platforms' websites · Administrative data · New specific survey questions for businesses 	<ul style="list-style-type: none"> · New specific survey questions for individuals · Administrative data
Number of people finding work via sharing economy platforms, their earnings and hours worked	<ul style="list-style-type: none"> · Data from platforms' websites · Administrative data · New specific survey questions for businesses 	<ul style="list-style-type: none"> · New specific survey questions for individuals · Administrative data

Source: Office for National Statistics

Each research question and data requirement presents its own challenges for us as producers of official statistics but as we work with organisations such as SEUK, we hope to overcome these together in order to produce robust statistics on the sharing economy. The potential methods and sources we are pursuing will be discussed further in subsequent chapters of this report.

4 . Survey questions

Action point 2: "ONS should identify existing surveys where additional questions on the sharing economy could potentially be asked:"

- introducing new questions on the E-commerce Survey for businesses
- introducing new questions on the Internet Access Survey for households and individuals
- reviewing other surveys which could potentially be used to collect information on sharing economy

In our previous report we outlined our intentions to include additional questions on the Internet Access Survey. Since then, internationally-harmonised questions have been finalised and these will ask respondents whether they have used an app or website to arrange accommodation or transport services from another individual. The survey collects data via face-to-face interviews from a net sample of approximately 3,000 adults. These questions will be out in the field in early 2017, with the first estimates from these questions due to be published in August 2017. These data will provide estimates of the proportion of adults who have arranged accommodation or transport services via sharing economy platforms and there is also the possibility of analysing these data by age and sex and comparing UK estimates with other EU member states.

Further to this, we are also including additional questions on the ONS E-commerce Survey. These data will enable us to produce initial estimates of the proportion of UK businesses that are using sharing economy platforms to arrange accommodation or transport services. This interest has arisen from increasing reports that businesses are moving away from traditional business-to-business service providers and are instead choosing to arrange these services through sharing economy platforms, for benefits such as cost and convenience. Many of the platforms themselves offer specialised business accounts for such customers.

We are also conducting a review of our other surveys and those across the wider Government Statistical Service (GSS), which could potentially be viable vehicles for collecting information on the sharing economy. When carrying out this review and liaising with the relevant survey teams and stakeholders, we are being mindful of striking the balance between user needs and respondent burden. For example, many of these surveys are currently undergoing review in a bid to reduce questionnaire length and so any request for additional questions must comply with stringent approval procedures. Additionally, before any new questions are added to any surveys, they must be rigorously tested by questionnaire design experts, to ensure they are comprehensible to respondents and meet data quality standards.

As part of our initial feasibility work to ascertain whether other existing surveys are potentially suitable for collecting this type of information in the future, we have been engaging with some of our Labour Force Survey (LFS) interviewers. Currently, the LFS asks respondents a series of questions about many aspects of the labour market – including their employment status, working hours, second job and earnings. Crucially, the survey does not ask for business (or platform) names, so cannot currently identify a cleaner, for example, who finds work through a platform such as Hassle, from another who runs their own cleaning business (with the same applying for taxi drivers and other professions also). There is ongoing discussion about whether individuals earning money from renting assets via platforms such as Airbnb, easycarclub and Vrmi see this activity as “work” or a “job”. Therefore, before we are at the stage of proposing new questions on established surveys, other than those aforementioned, further discovery work needs to be conducted around platform workers’ understanding of their employment status.

Other potential survey sources may also include conducting a Time Use survey to collect information on how much time individuals spend undertaking sharing economy activities within a given period. This information could then be used to calculate value estimates of sharing economy activity.

We will commit to review the suitability of existing surveys to collect information on the sharing economy. Once this review is completed, we will update stakeholders on plans to include any additional questions and provide a timeline to indicate when initial estimates will be published.

5 . International best practice

Action point 3: “ONS should continue to engage at a European level and ensure that ONS keeps pace with international best practice”:

- introducing new questions on the Internet Access Survey which will be harmonised across EU member states
- actively contributing to discussions at an international level

As an active member of the European Statistical System, we are committed to collaborating with other National Statistical Institutes to capture sharing economy activity. As discussed, when referring to the sharing economy at a European level, the term “collaborative economy” is more widely used. Eurostat actively promotes the harmonisation of statistical methods across the EU and is facilitating regular discussion between EU member states on the topic of the collaborative economy.

Furthermore, as outlined under action point 2, the new questions on the Internet Access Survey asking households and individuals about their use of websites and apps to arrange accommodation or transport services, will be harmonised across the EU member states. Achieving international harmonisation will increase the utility, relevance and comparability of sharing economy statistics for users. This will enable comparative analyses of the proportion of adults in each member state who are engaging in these activities, with possible breakdowns by age, sex and other demographic variables. This will enable the UK to not only track growth in the domestic market, but also assess how some aspects of the UK sharing economy are faring compared with their EU counterparts.

As part of the annual review process led by Eurostat where new questions are rotated onto the Internet Access Survey to meet stakeholder requirements, discussions with EU member states regarding further additional questions are underway for the subsequent reference period, 2017. These potential new questions will collect information on individuals who are carrying out work, in a self-employed capacity, which they have obtained via sharing economy platforms.

We will continue to seek opportunities to engage internationally, particularly as the sharing economy is a global phenomenon with many platforms operating in the UK, contributing to the economy and labour market, but being registered abroad. Similarly, there are numerous cases where platforms registered in the UK are operating in other countries.

6 . Administrative data

Action point 4: “ONS should work with sharing economy businesses to gain access to administrative data and also understand how these businesses are structured”:

- liaising with sharing economy platforms to better understand their business models and to potentially obtain data directly from their websites or accounts
- actively pursuing other administrative data sources, such as self-assessment tax returns from Her Majesty's Revenue and Customs (HMRC)

We are committed to working closely with sharing economy platforms to obtain access to administrative data for statistical purposes and will be carrying out a “discovery phase” over the next few months which will involve identifying, accessing, cleaning and analysing such data to ascertain its relevance and utility in answering our research questions. Furthermore, we need to ensure we can use and interpret any data accurately in order to produce robust statistics, which is why we firmly believe that the best route to understanding and measuring the sharing economy is to directly engage with the platforms themselves. These discussions have commenced and as soon as an update is available we will announce it in due course.

As mentioned in section 3.2 of this report, there are a number of potential approaches to measuring the sharing economy – we can attempt to go directly to the platforms, but also to the individuals who are participating in the sharing economy themselves. In terms of measuring this sector from the perspective of the individuals, we are pursuing other sources of administrative data such as self-assessment tax returns from HMRC. Once again, it is worth reiterating that ONS wholly comply with strict data protection and confidentiality laws to ensure that individuals' anonymity is never compromised.

As with any of the potential data sources, using administrative data to measure the sharing economy will only be possible once a definition and statistical coverage has been agreed. We will also need a systematic way of identifying businesses in the sharing economy, either prior to or post-obtaining administrative data, an issue that is discussed further in section 7.

7 . Identifying sharing economy businesses

Action point 5: “ONS should utilise information such as turnover, employment, establishment dates, and industry classifications to identify further sharing economy businesses”:

- manually identifying additional platforms and conducting further analysis of their Inter-Departmental Business Register (IDBR) data
- implementing recommendations from the data science project which used machine learning in an attempt to identify additional sharing economy platforms registered on the IDBR
- analysing existing survey data returned by sharing economy platforms
- capturing sharing economy platforms in samples of established ONS surveys
- working with SEUK and other stakeholders to identify members of the sharing economy

Progress has been made in this area in that we have increased the number of platforms we have identified on the IDBR, from 50 in our previous report to over 100 currently. The process of identifying these additional businesses involved conducting literature reviews, where papers by PricewaterhouseCoopers ([April 2016](#)) and the U.S. Department of Commerce ([June 2016](#)) provided particularly helpful lists as starting points for our investigations.

However, we recognise that until a universally agreed definition of the sharing economy is available, the businesses we have identified are subject to discussion and interpretation. Additionally, these businesses' structures and business models may still be evolving, which could move them in or out of scope in future. We have again taken an open and inclusive approach to identifying businesses, so we recognise that there is potential for overcoverage, as well as the more obvious undercoverage. It should be reiterated that some very small businesses – those without employees and those below the VAT threshold, are not covered by the IDBR. It is therefore likely that individuals generating income from the sharing economy are not captured, leading to potential undercoverage of this activity.

To improve our method of identifying businesses in the sharing economy, in pursuit of a more comprehensive, objective and systematic list, we used data science techniques to build and apply machine learning models to the IDBR based on the characteristics of the businesses we had already identified. Although the models we developed could not accurately predict whether businesses were in the sharing economy, the reasons for this lead to 2 conclusions. Firstly, that the current set of identified sharing economy businesses, as represented on the IDBR, is too diverse to accurately identify a pattern which could be modelled to classify unknown businesses. Secondly, that the defining features of sharing economy businesses may not be apparent in the variables held on the IDBR.

However, this project did increase our understanding of the sector and identified some important recommendations for us to take forward. These include identifying existing survey returns from known sharing economy platforms to established ONS surveys such as the Annual and Monthly Business Surveys, the Business Register and Employment Survey and the Annual and Quarterly Acquisitions and Disposals of Capital Assets Surveys. This will enable us to compare returns from sharing economy businesses with those of non-sharing economy businesses to potentially identify any characteristics that could be used to inform further identification of platforms.

Initial investigations have indicated that only a small proportion of the sharing economy platforms we have identified have been surveyed by ONS before, mainly due to their low employment or recent establishment dates. Therefore a recommendation arising from this project is to include these platforms in at least 1 of our surveys for the next reference period. We also actively work to reduce the burden on small businesses and so these platforms may only be surveyed for 1 year.

It is hoped that the increase in the amount of information and number of variables we collect from these businesses, will greatly improve the accuracy of further identification work both manually and when applying data science techniques. These variables may include capital expenditure, employment costs, online sales and international trade. For a more detailed list of variables that we plan to collect from sharing economy platforms in the next year, please see Table 3. This list is for illustrative purposes only and is not exhaustive.

Table 3: Example variables to collect from sharing economy businesses

· Total turnover	· Amounts payable for advertising and marketing services
· Total employment costs	· Amounts payable to subcontractors
· Total purchases	· Amounts payable to employment agencies
· Total rates, duties, levies and taxes	· Imports of goods and/or services
· Value of acquisitions of capital assets	· Exports of goods and/or services
· Value of disposals of capital assets	· Research and development
· Use of computers	· Use of internet
· Use of social media	· Use of website
· Value of online sales	· Value of online purchases

Source: Office for National Statistics

In addition to survey data, we are also exploring using big data techniques such as web crawlers to identify websites of sharing economy platforms. These techniques will require input data in order to program the web crawlers, which the survey data will feed into. This will be discussed further in section 8 of this report.

We are also committed to working with SEUK and its members to pursue a more complete list of UK sharing economy platforms.

8 . Big data

Action point 6: “ONS should carry out further research to investigate the potential of obtaining data from sharing economy websites including web scraping, APIs and/or negotiated access to data relevant for statistical purposes”:

- pursuing obtaining permission from sharing economy platforms for web scraping and Application Programming Interfaces (APIs)
- exploring feasibility of other methods such as using web crawlers to identify sharing economy platforms online
- investigating using big data to classify businesses
- launching ONS data science campus

Since the sharing economy is primarily, if not exclusively, an online phenomenon, in principle it should be possible to collect information on most sharing economy transactions directly from the internet, either via web scraping (extracting semi-structured data directly from a website) or via an application programming interface (API) (which provides a direct feed of the underlying data). A review of a sample of sharing economy websites has identified a small number which have APIs, however, many do not have an API and explicitly prohibit web scraping. Additionally many do not offer an API and do not specify in the website terms and conditions whether web scraping is prohibited. In addition to data availability and the terms and conditions of specific websites, we also recognise that accessing personal data via the internet raises concerns around security and privacy.

The ONS Big Data team are undertaking more in-depth research on the potential of these data sources for measuring activity in the sharing economy, while ensuring that our work fully complies with our obligations under the Code of Practice for Official Statistics. Our preferred approach is to work directly with sharing economy businesses and SEUK to obtain access to data and potentially to private APIs, rather than relying on web scraping, but we are continuing to address the practical and legal issues around scraping.

Web scraped data may also be useful in identifying businesses engaged in the sharing economy – information on an enterprise website may be more powerful than information on the Inter-Departmental Business Register (IDBR) in classifying whether a business is engaged in the sharing economy. More generally, there may be considerable scope for identifying the types of economic activity an enterprise engages in over and above the [standard industrial classification](#) (SIC) system currently used in the collection, production and dissemination of official business and economic statistics. In addition to legal and ethical considerations around web scraping, there are a number of major technical challenges to overcome – the IDBR does not include web addresses, so websites must be identified via a search engine and even when a website is identified, the web scraped data are completely unstructured. Working together with other EU member states, we are running a pilot to evaluate the scope for improving business classifications, including identifying sharing economy businesses, by using web scraped data. The outcome of this pilot will be communicated to stakeholders when available.

Finally, in October 2016 we are launching our Data Science Campus which will bring together specialist research teams with the necessary skills and technology to deliver innovative data analytics projects, such as those outlined above.

9 . Conclusion

This report has outlined the progress made by the Office for National Statistics (ONS) so far in attempting to measure the sharing economy. The main areas of development so far have been introducing new survey questions, capturing platforms in existing survey samples and pursuing access to relevant administrative and big data sources.

We have explored a number of different approaches and potential data collection methods that could be used to obtain data on the value of the sharing economy and its impact on the labour market, to be used in the production and dissemination of standalone official statistics.

We have also proposed 3 broad categories of sharing economy activities for further discussion with stakeholders:

- property rental and access
- peer-to-peer services
- collaborative finance

Finally, this report has outlined further work in this area that we will be undertaking going forward. This includes completing a review of potential administrative data sources, analysing survey returns from sharing economy businesses and conducting a pilot study to explore the feasibility of using web scraping to classify further sharing economy businesses. These work streams will be undertaken in collaboration with stakeholders from across government and internationally, as well as SEUK.

9.1 Next update

We will keep stakeholders informed of progress against the work streams outlined in this report, with the first estimates relating to the sharing economy from the Internet Access Survey being published in August 2017. We welcome your feedback on the contents of this report, if you have any comments please email us at sharing.economy@ons.gsi.gov.uk

