

ONS Economic and Business Statistics transformation programme: ARIES

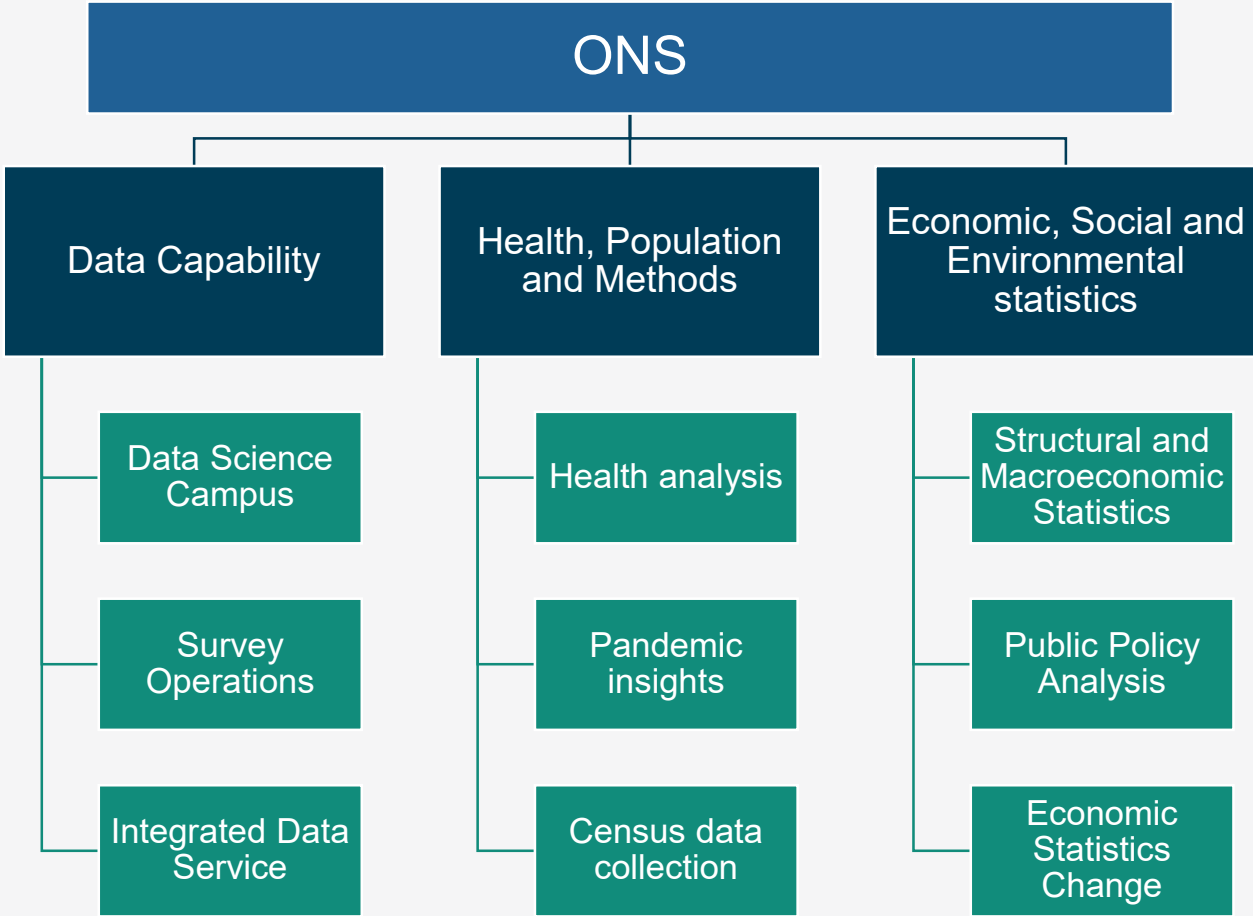
Donna Leong

Director, Economic Statistics Change
Economic and Social Statistics
ONS

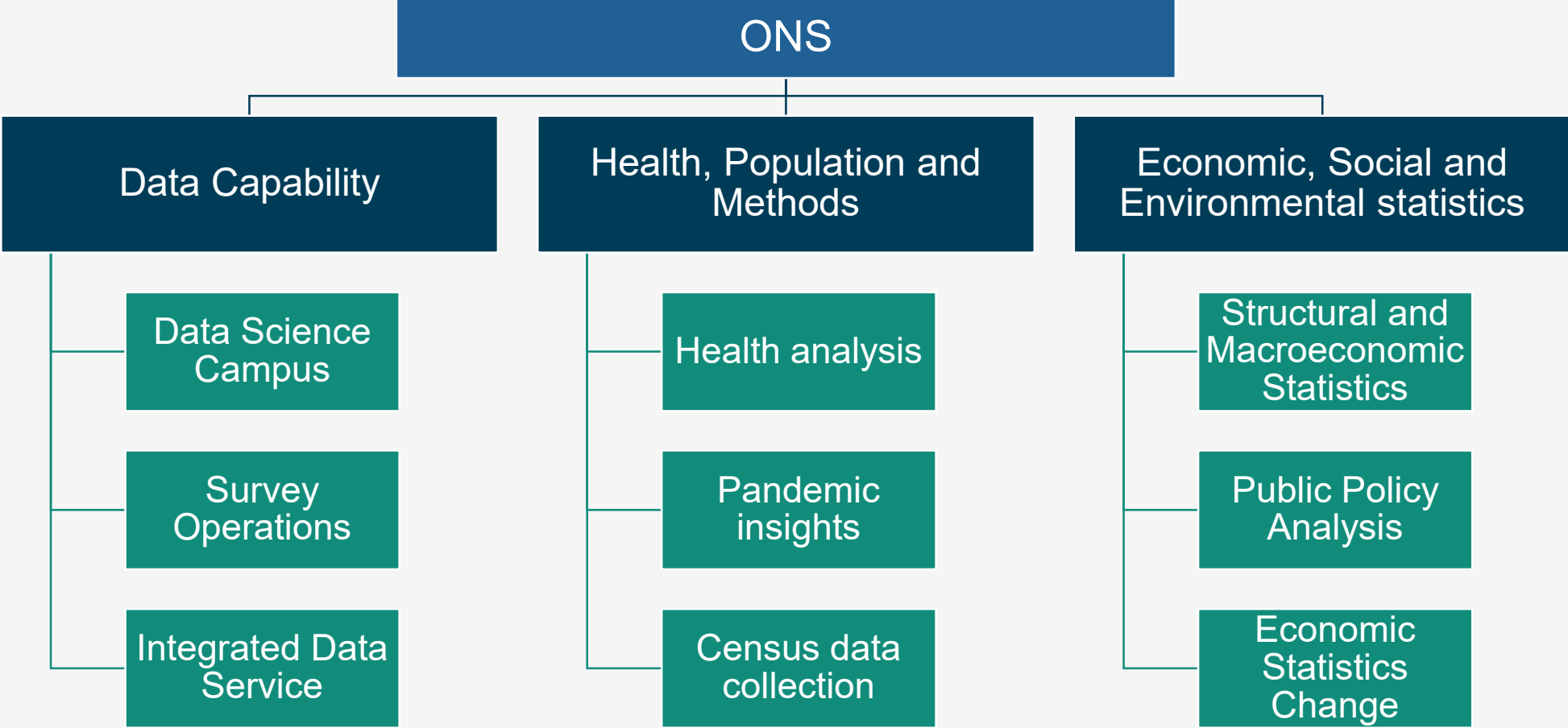
23 September 2021



Statistics for the Public Good



ONS structure





The ARIES Programme

What is ARIES?

- Ambitious Radical Inclusive Economic Statistics
- ARIES is the programme of development for economic statistics within 2021/22
- It was formed following the closure of the previous Economic Statistics Transformation Programme (ESTP) whose business case came to a conclusion in March 2021
- ARIES is set to oversee the completion of the Economic Statistics Group ten year change journey

Programme Vision

As experts in our field we will provide clear, insightful statistics and analysis to inform decision-making across the UK economy in a dynamic, inclusive and sustainable way

Programme Aims

Aim 1

Data in our core economic statistics

To deliver a high-priority programme of change to our core economic statistics; including greater and better use of data, notably administrative data in our measurement of inflation, improved survey data in our headline Labour Market estimates and continued expansion of our Faster Indicators suite

Aim 2

Flexible, with pace and responsive

To be flexible, work at pace, and responsive to urgent economic statistics needs of the day, predominantly the COVID-19 pandemic and UK exit from the EU and to support the levelling up agenda

Aim 3

Direction of travel

To establish a firm direction of travel during a 'no regrets' transition period

ARIES Programme Board

ARIES Delivery Group

ARIES Projects



Business Surveys and Statistics

Developments planned and in progress

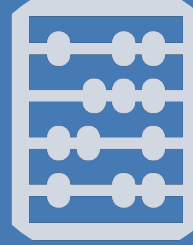
Developments in progress



New production systems



New survey collection methods



Exploring administrative and other data sources



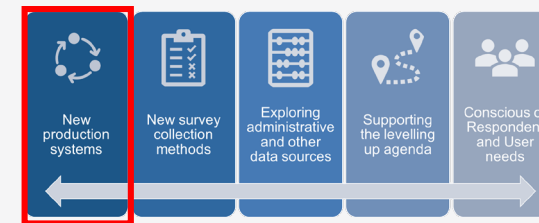
Supporting the levelling up agenda



Conscious of Respondent and User needs

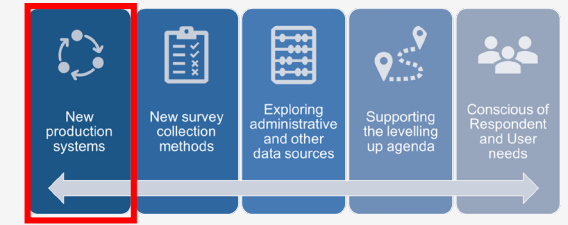


New production systems



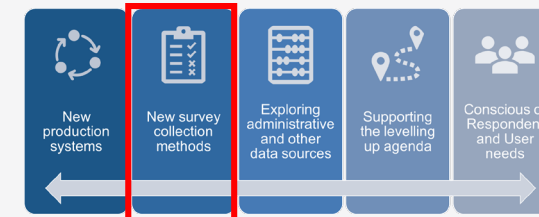
- To improve delivery of statistics we've been working to modernise our systems
 - We are developing a new cloud based platform to enhance our processes for producing statistics (a statistical production platform) and the first of the short term business surveys (Retail Sales) is moving onto this new platform later this year
 - Some of our more established surveys are a bigger technological challenge, and we aim to develop new systems for them over the next few years

Modernised systems improve user experiences



- Reduced risk of error in processing and production of statistics
- More flexibility with the content of our surveys – can respond to user demands, evolve and adapt to them over time
- Opportunities to align methods, processes and systems
- More streamlined production and delivery of statistics - potentially reducing the time between reference period and publication (particularly for the annual surveys)

New survey collection methods



Electronic Questionnaires



- Continued roll out of E-questionnaires (Already in place for a number including Construction & Retail Sales)
- E-questionnaire as default for new surveys (e.g. BICS)

Complex Data Discovery



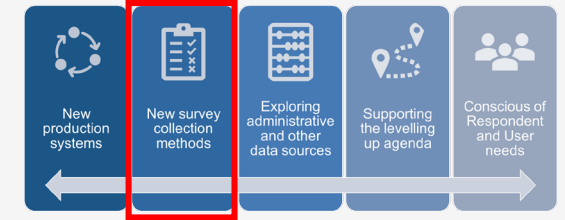
- For our more complex and extensive surveys we have explored the challenges respondents face in completing these
- Informing our design choices for moving these complex surveys to a digital platform

Editable Documents



- For those complex surveys we can't yet move to digital platforms we've introduced Secure Electronic File Transfers (SEFT) and editable PDFs
- Annual Business Survey began issuing editable PDFs in 2020, issuing nearly 4,000, for 2021 (so far) demand for PDFs has more than tripled

Digital collection leads to wider improvements



Digital questionnaires and editable response documents



Surveys are easier for businesses to complete



Improved response rates, data received faster



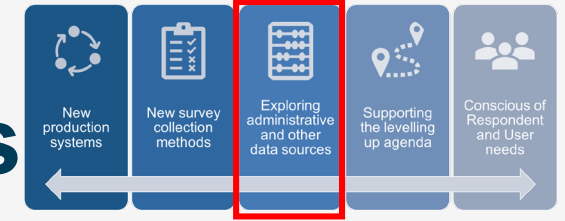
More time to validate and improve the quality of the data



Better Quality Statistics

- These improvements unlock additional opportunities:
 - More flexibility with changing the survey questions
 - Can potentially explore increased sample sizes with limited impact on existing operations

Exploring administrative data sources



- Administrative data allows us to dig deeper and gives greater context to our existing statistics.
- We are developing a strategy to outline our plans for how it will be used alongside survey sources

Admin Data Strategy

Supporting role

Quality Assurance and validation of survey data

Informing methods (e.g. sampling, apportionment)

Aligning with other sources

New complementary statistics

Replacing survey data

Replace existing questions (and enable new ones to be asked)

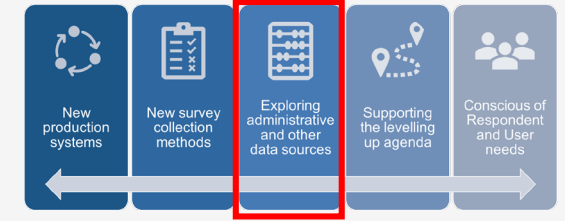
Reduce our sample size

Admin Data gives a different view

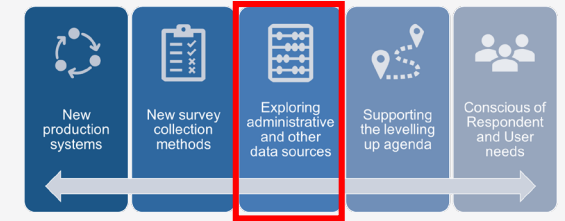


- **Coverage** - far greater coverage of businesses than surveys, and can facilitate breakdowns to lower levels e.g. geographical apportionment
- **Timeliness** - Some sources of admin data are produced more rapidly than survey data and could be used to provide an indication of anticipated changes or estimates
- **Concepts** – It isn't possible to find appropriate admin sources for some statistics, there are many instances where administrative data sources simply do not capture the precise variables needed, equally they can provide data that couldn't easily be collected via surveys

Challenges of using admin data



- **Getting the Balance right** – there is a tricky balance to find in understanding when to use admin data or survey data and how that effects the robustness and granularity of data
- **Security and disclosure issues** – the nature of admin data necessitates a sensitive approach to data that can identify individuals. There are restrictions which limit how we use and produce statistics on this basis
- **Implications for Microdata** – to ensure individuals data are protected, the microdata for statistics might not be able to include admin sources and mean that it is not easily comparable to published statistics. The **Integrated Data Service** may facilitate integration between admin sources and survey sources for wider users



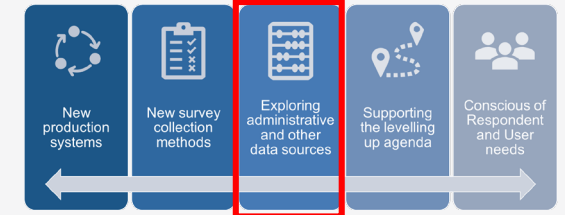
Improving Methods and QA

- Corporation Tax

- Three projects exploring how corporation tax data can support our statistics:
 1. Improving coverage of the new Statistical Business Register
 2. Understanding the divergence between the different measures of GDP
 3. Validation and potential increased coverage of Annual Business Survey

New Complementary Statistics – Real time Indicators

- These are experimental statistics, more timely than official statistics
- The objective is to support policy makers and forecasters in aiming to identify turning points
- It was not common practice for national statistics institutes to publish these before the pandemic, although ONS started to publish in 2019 to track effects of EU exit.
- The Economic Statistics Centre of Excellence (ESCoE) is undertaking research to identify the predictive power of these real-time indicators to see if we can improve the nowcasting capabilities



Examples:

- UK daily flights
- UK seated diners
- Online job adverts
- CHAPS data
- Retail footfall
- Ship visits
- DfT volume of motor traffic
- Traffic camera activity
- Companies House dissolution activity

Aligning with other sources



VAT data

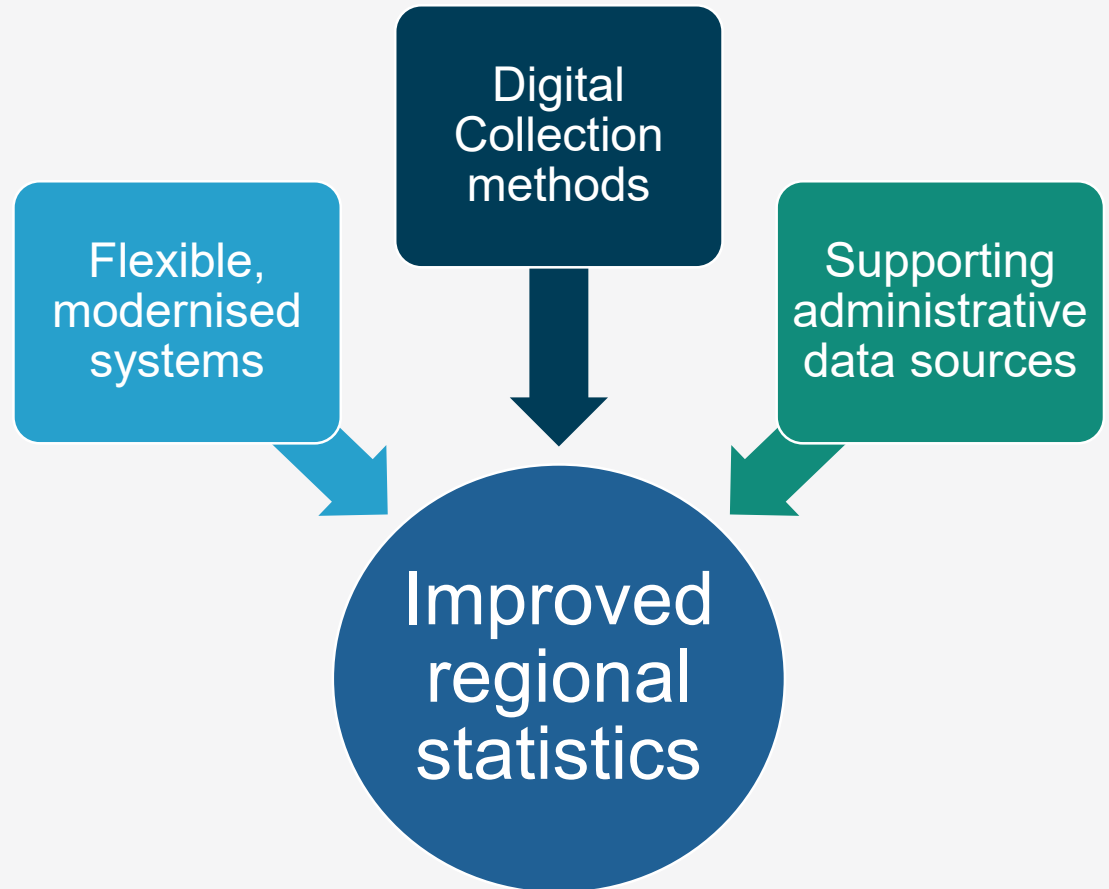
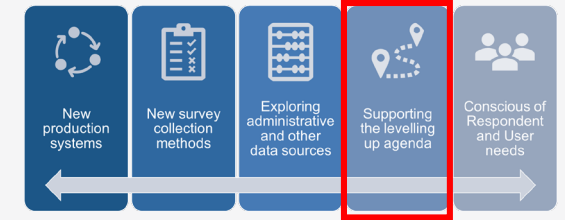
- Already underpins our regional and quarterly GDP estimates, and may be used for more estimates at more granular level
- Research project on how we can use it to supplement faster estimates
- And consider whether it can open up potential for additional statistics, e.g. for industries not covered by surveys

Tax Credits

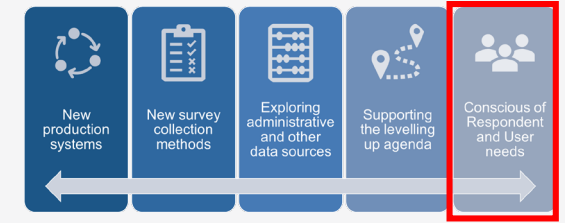
- Understanding the connection between R&D tax credits and R&D estimates
- Improving the alignment and quality of data from different Government Sources

Supporting the levelling up agenda

- All of these developments support improved regional statistics. We are:
 - Researching international best practice for creating sub-national estimates of business statistics
 - Developing longitudinal microdatabases for in depth granular research over time
 - Exploring flexible geographies and facilities to produce estimates for areas other than those covered by NUTS

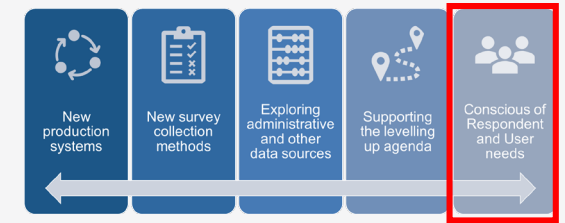


Aware of impacts on respondents



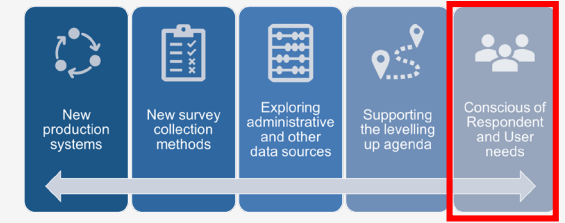
- All of our developments are aimed to improve the quality of our surveys and statistics
- The key driver for our business surveys will be the cooperation of respondents. Acknowledging this our developments are underpinned by the following principles :
 - Keep respondent processes simple – Changes to survey collection need to minimise the burden on respondents, and be easy for them to complete
 - Maintaining trust – Reassuring businesses that any new sources like admin data are being used safely, securely and maintaining processes to limit access to disclosive data

Responding to our users needs



- The pandemic created additional pressures on the production and delivery of statistics, but despite this our statistics continued to evolve, improve and respond to user needs
 - **BICS** - Developed rapidly in response to the pandemic to deliver more detailed business statistics faster than from any other source
 - **Digital Economy survey** – A replacement to the E-commerce survey, following stakeholder consultation development is underway for a launch in 2022
- Looking forward we expect our statistics to continue to evolve in response to structural changes within the economy, this might include: ongoing **EU exit** impacts on trade, business **recovery from the pandemic**, and introductions of **new technologies**

Your views matter



- What ambitious or radical changes would you most like to see in our business statistics?
- What would help you to get more from our business statistics?

Questions?

Contacts

Index of Services – ios.enquiries@ons.gov.uk

Index of Production – indexofproduction@ons.gov.uk

Construction statistics – construction.statistics@ons.gov.uk

Retail Sales – retail.sales.enquiries@ons.gov.uk

Regional GDP – regionalgdp@ons.gov.uk

Business Insights and Conditions Survey - bics@ons.gov.uk

Annual Business and Purchases Surveys – abaps@ons.gov.uk

E-Commerce – ecommerce@ons.gov.uk

Research and Development - RandD@ons.gov.uk

PRODCOM – prodcompuplications@ons.gov.uk

Annual Survey of Goods and Services – ASGS@ons.gov.uk