

Transparency and Reproducibility in the UK

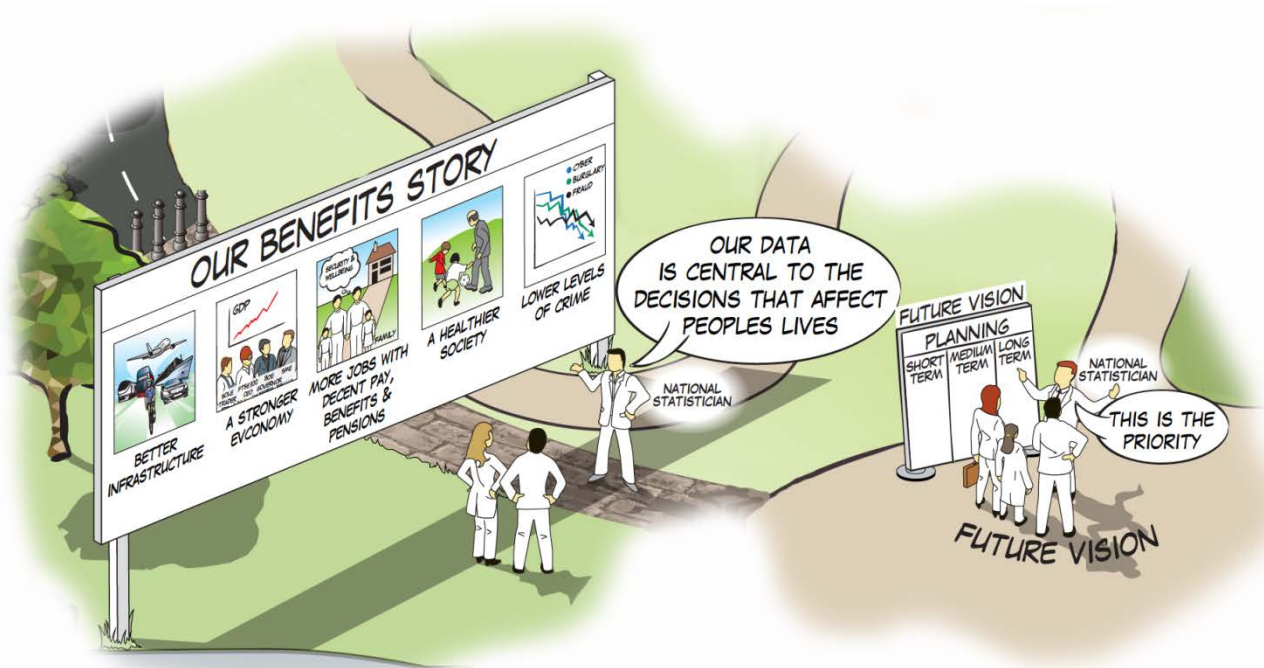
June 21–22 Washington, DC

Sarah Henry & Pete Brodie - ONS

The United Kingdom of Great Britain and Northern Ireland



ONS area: our purpose and our focus



ONS exists to provide statistics, analysis and data to inform decision making and for the public good.

It is important to recognise the impact we have. From improvements to infrastructure, a stronger economy, more jobs, and better health, our outputs will help improve the lives of people in the UK.

Our Challenges and Opportunities:

- **Knowledge:** matching and linking data so as to describe explain our society and our economy
- Exploiting non survey data in the age of the **Data Revolution**
- Remaining **trusted** in the age of “fake news”
- Safeguarding the data while allowing it to be used as a **public asset** for the public good

Our approach:

Statistical Governance in UK



A cross-government network, including components of the devolved administrations and UK government departments. Led by the National Statistician.



The executive office of the Authority. It is the UK's National Statistical Institute (NSI) and largest single producer of official statistics in the UK. Covers a range of key economic, social and demographic topics.

Office for Statistical Regulation

Ensures that statistics are produced and disseminated in the public interest. It does so by assessing official statistics for compliance with the Code of Practice for Official Statistics, monitoring and reporting publicly on statistical issues, and challenging the misuse of statistics.

How ONS will look in future

LEVEL

1

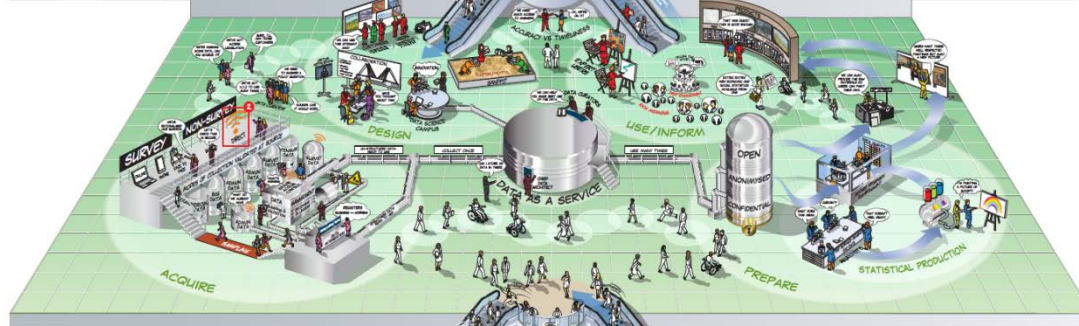
DELIVERY & IMPACT



LEVEL

2

PRODUCTION & FLOW



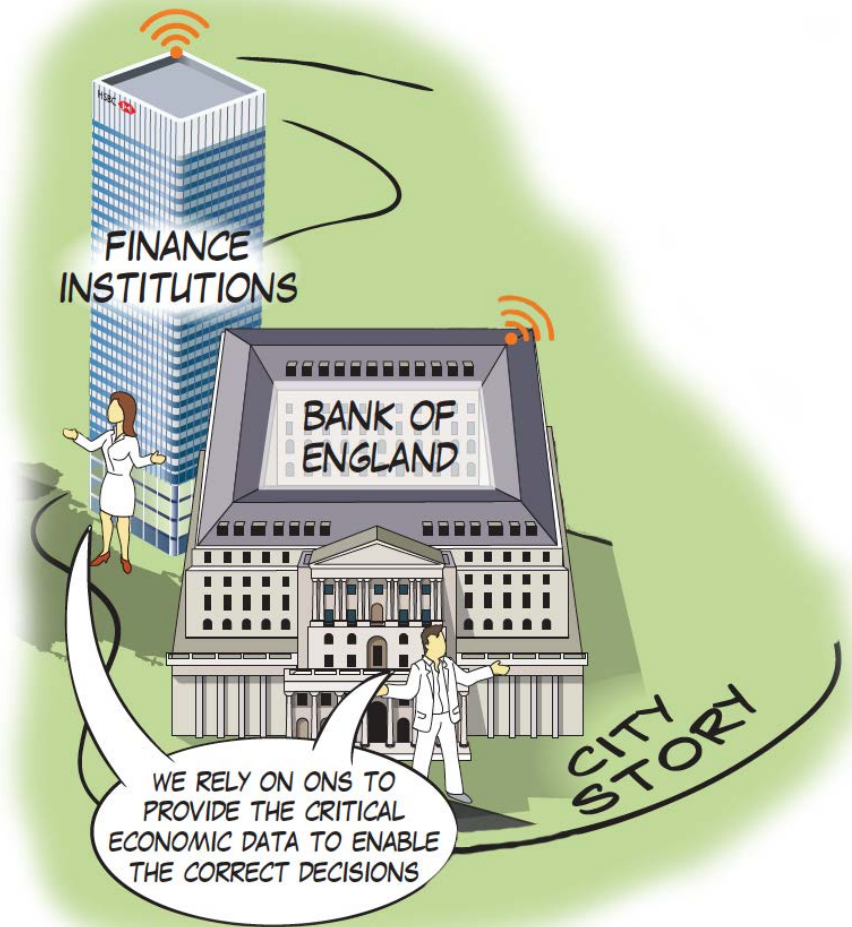
LEVEL

3

CAPACITY & CAPABILITY



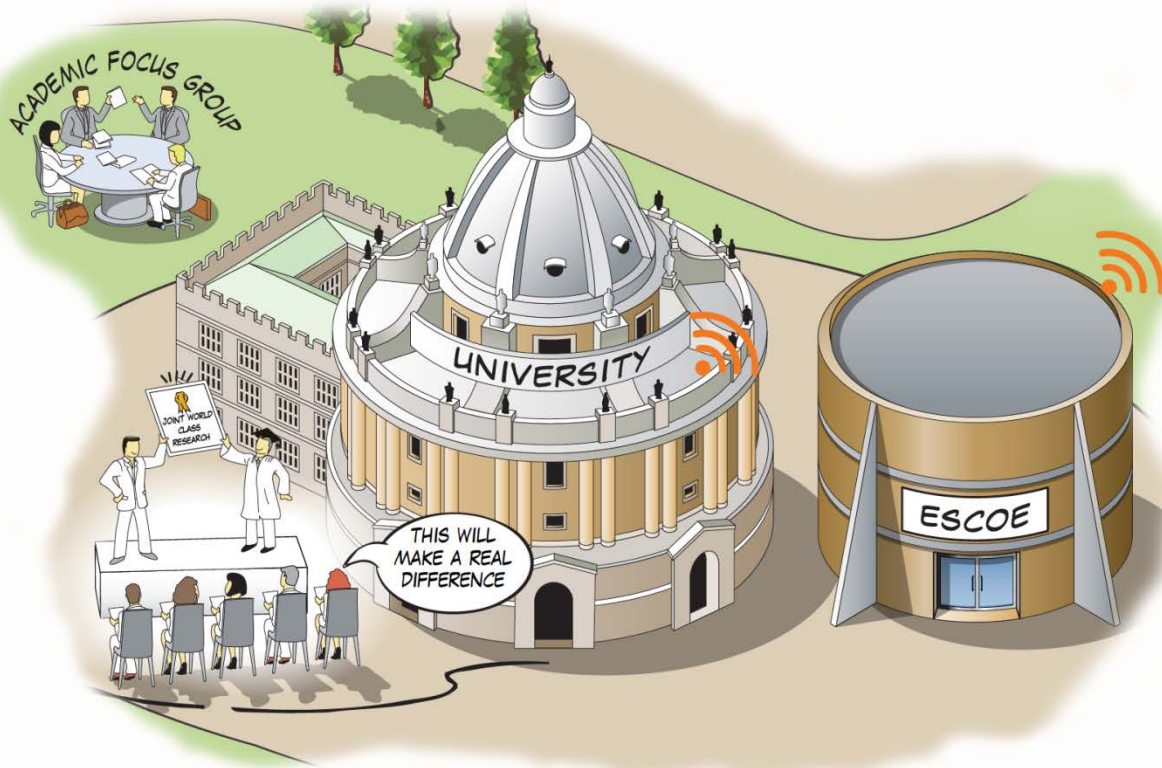
Metropolitan area: city story



Through the transformation of our economic statistics we will produce products which measure the modern economy (such as improved national accounts and financial accounts).

These will be fundamental to decision making within financial institutions.

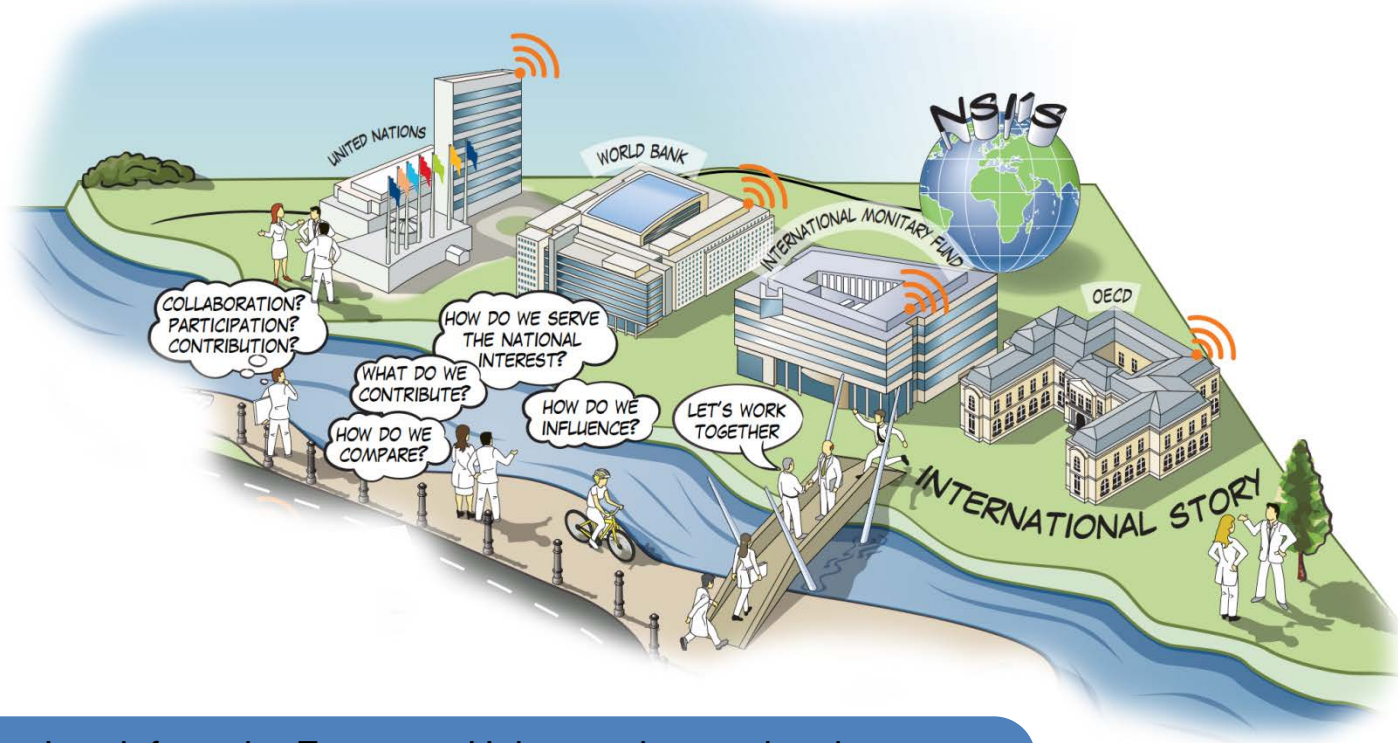
Academic story



We will increasingly work in partnership with academic institutions on the delivery of world class research across a range of areas. ONS Research Fellows, academics and industry experts will collaborate to answer key questions about the performance of the UK economy and society.

International story

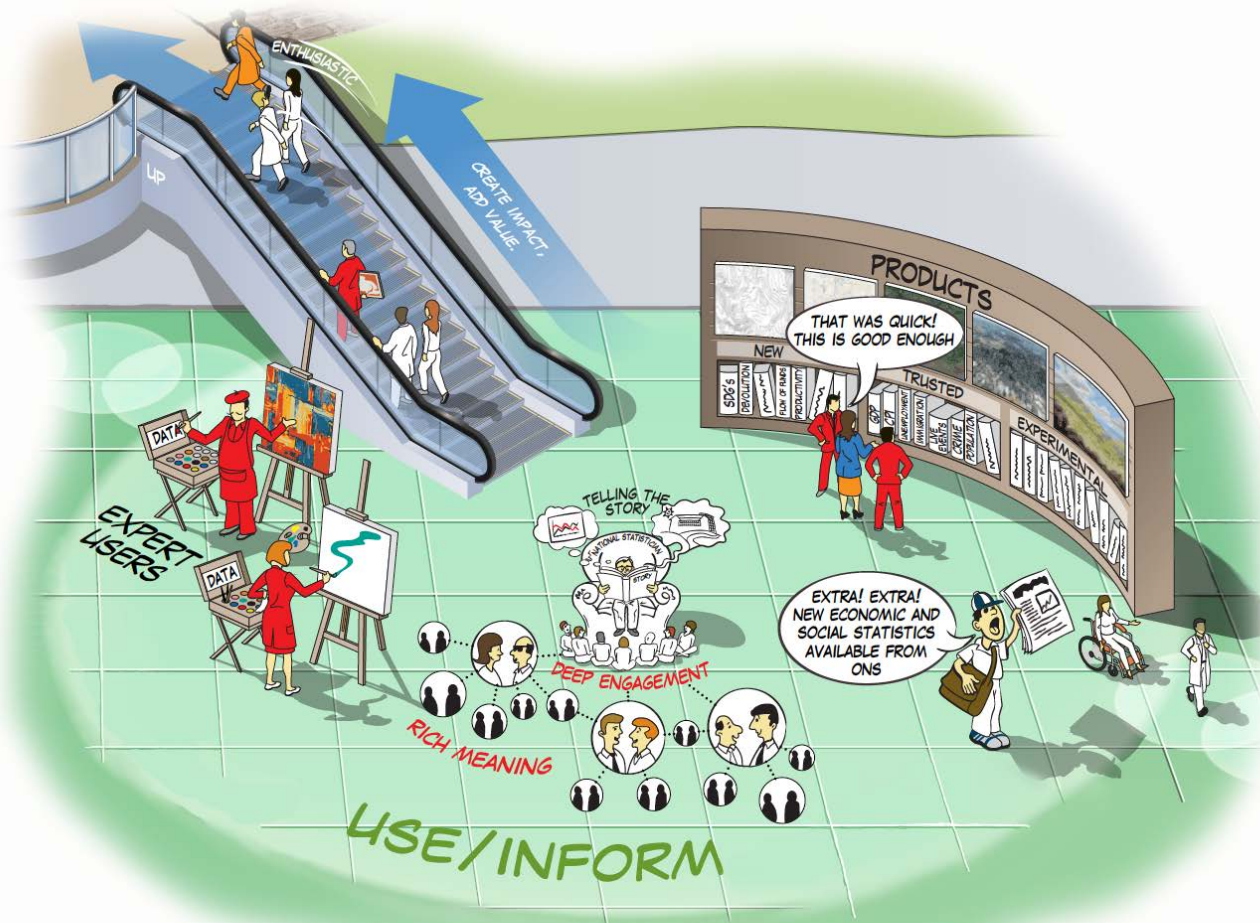
In an increasingly globalised world we must collaborate with international partners if we are to truly answer the questions facing our own society.



With the United Kingdom's exit from the European Union our international relationships will change. How this will play out remains to be seen but it may lead to an increased focus on relationships with the OECD, the IMF and the UN. Eurostat and other National Statistics Institutes within Europe or globally will remain key partners and colleagues.

Enhanced Knowledge:

Use and Inform story



Our aim is to provide statistics, analysis and advice for the public good, to help Britain make better decisions.

The use of our outputs will impact on the external environment and we will engage with users to ensure we meet their needs.

Use and Inform: products story

Our trusted products will cover national accounts, consumer prices, life events, crime, unemployment, etc. We will also see a series of new products such as flow of funds, and significant improvements to how we measure trade, productivity and migration.

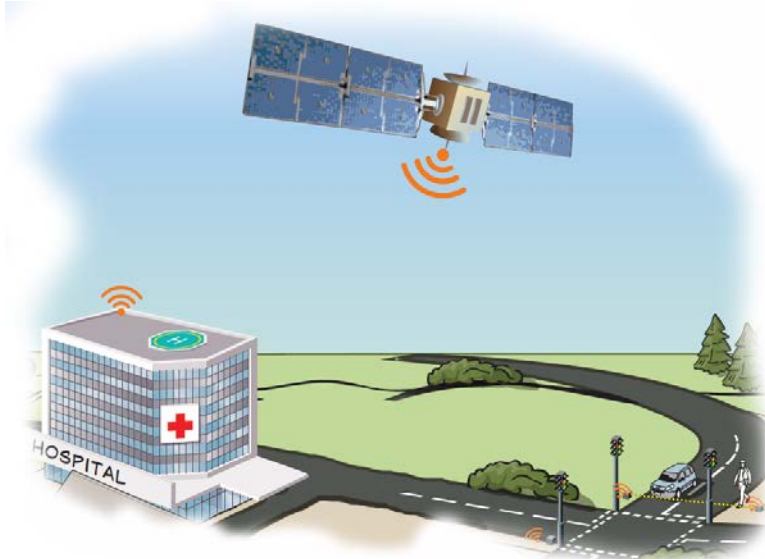
Experimental statistics will also allow us to try new methods and techniques.

Users will appreciate the timeliness of our products.



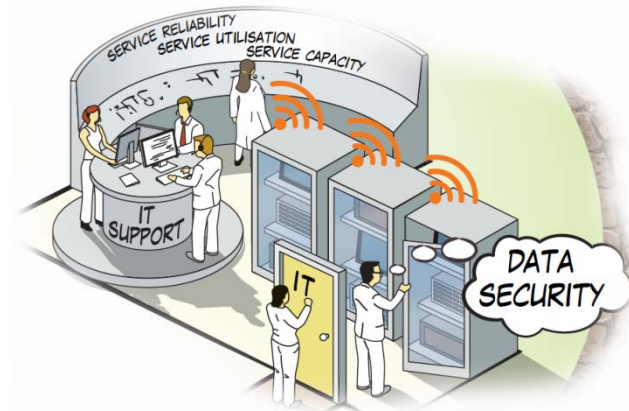
The Data Revolution

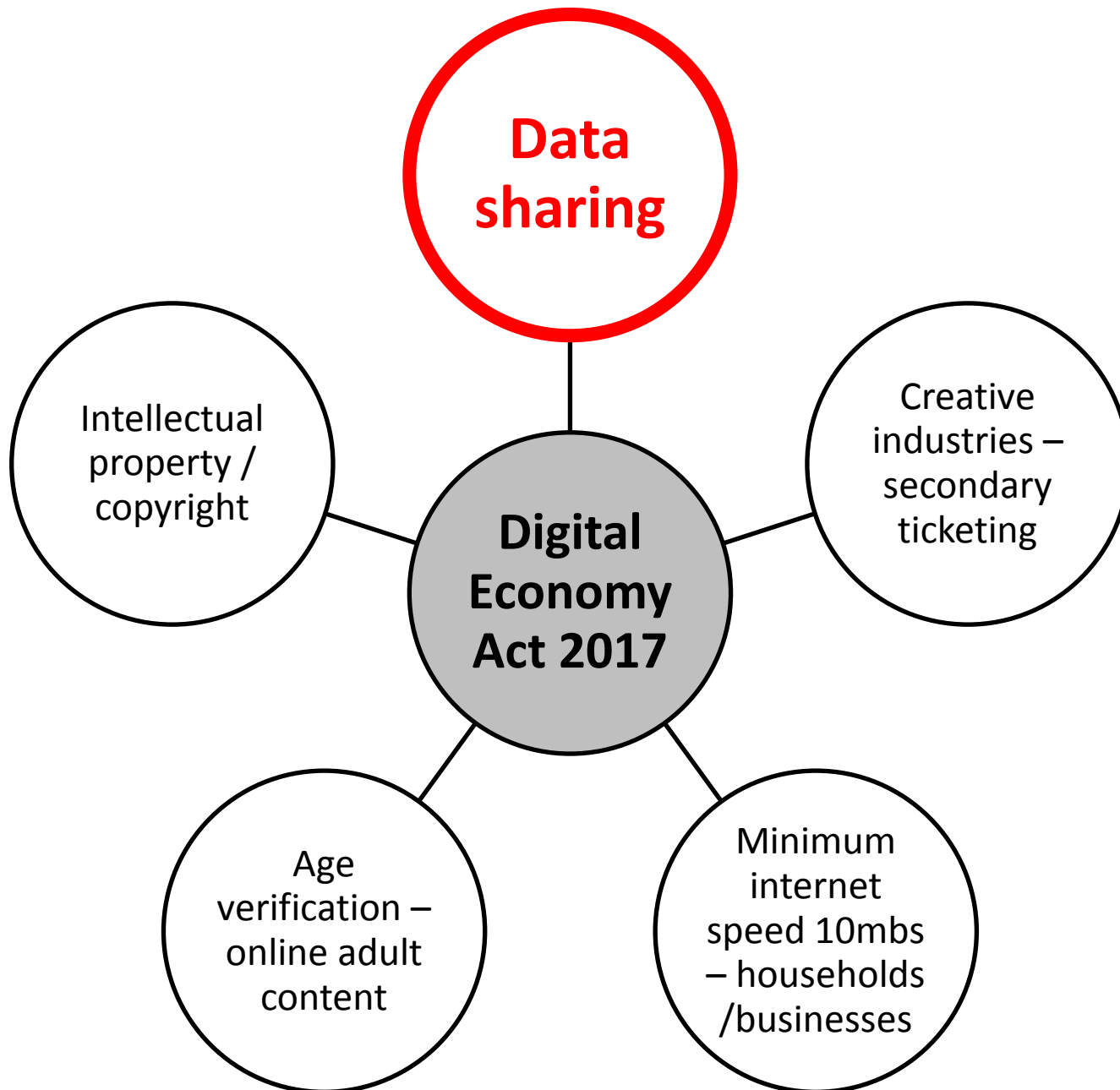
Non survey story

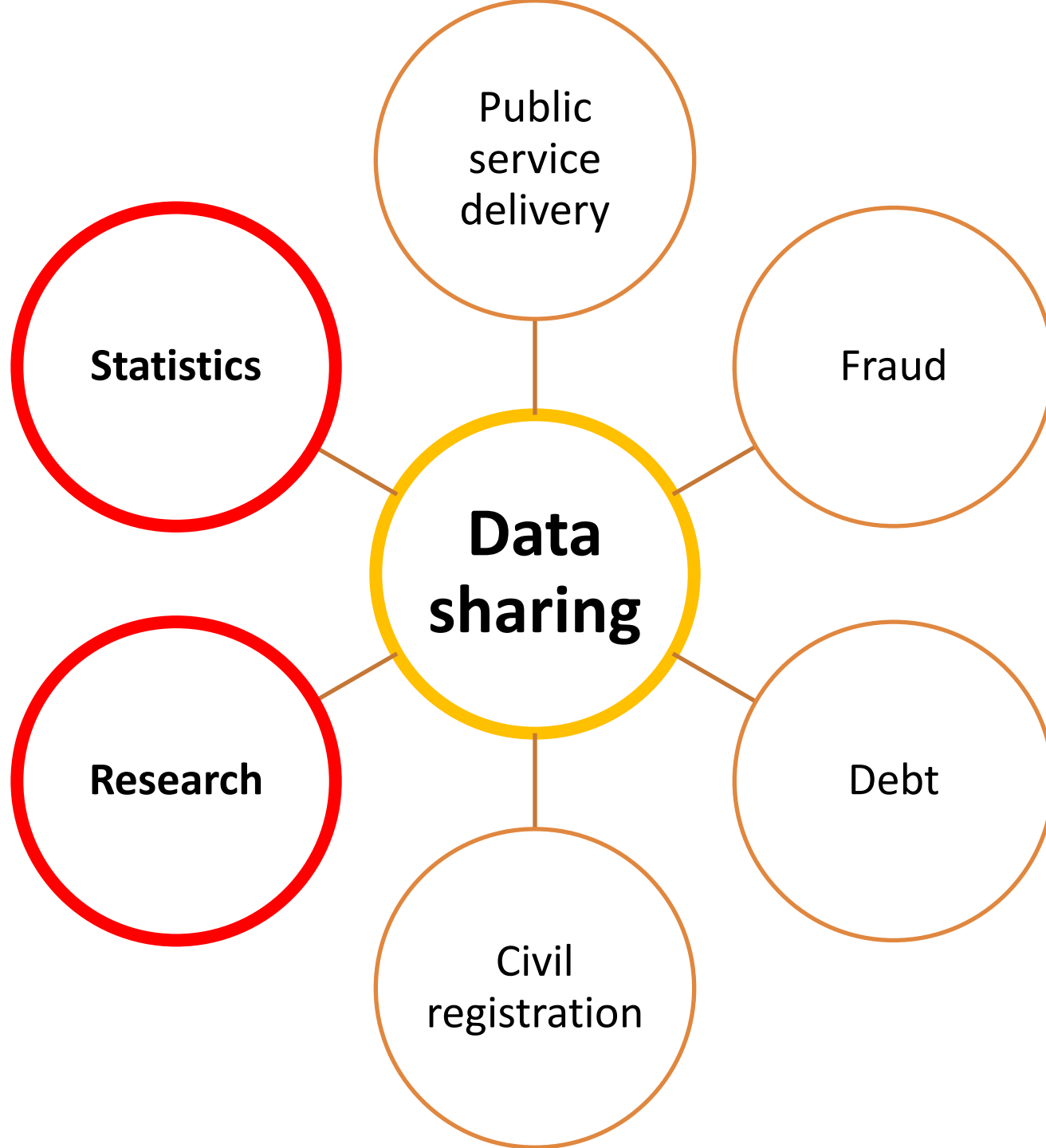


Increasingly data is available from sources which we could not previously comprehend, from biometrics, to food consumption, recycling and rainfall. In the future this will increase and we will use this data securely in the production of statistics and the analysis of policy questions.

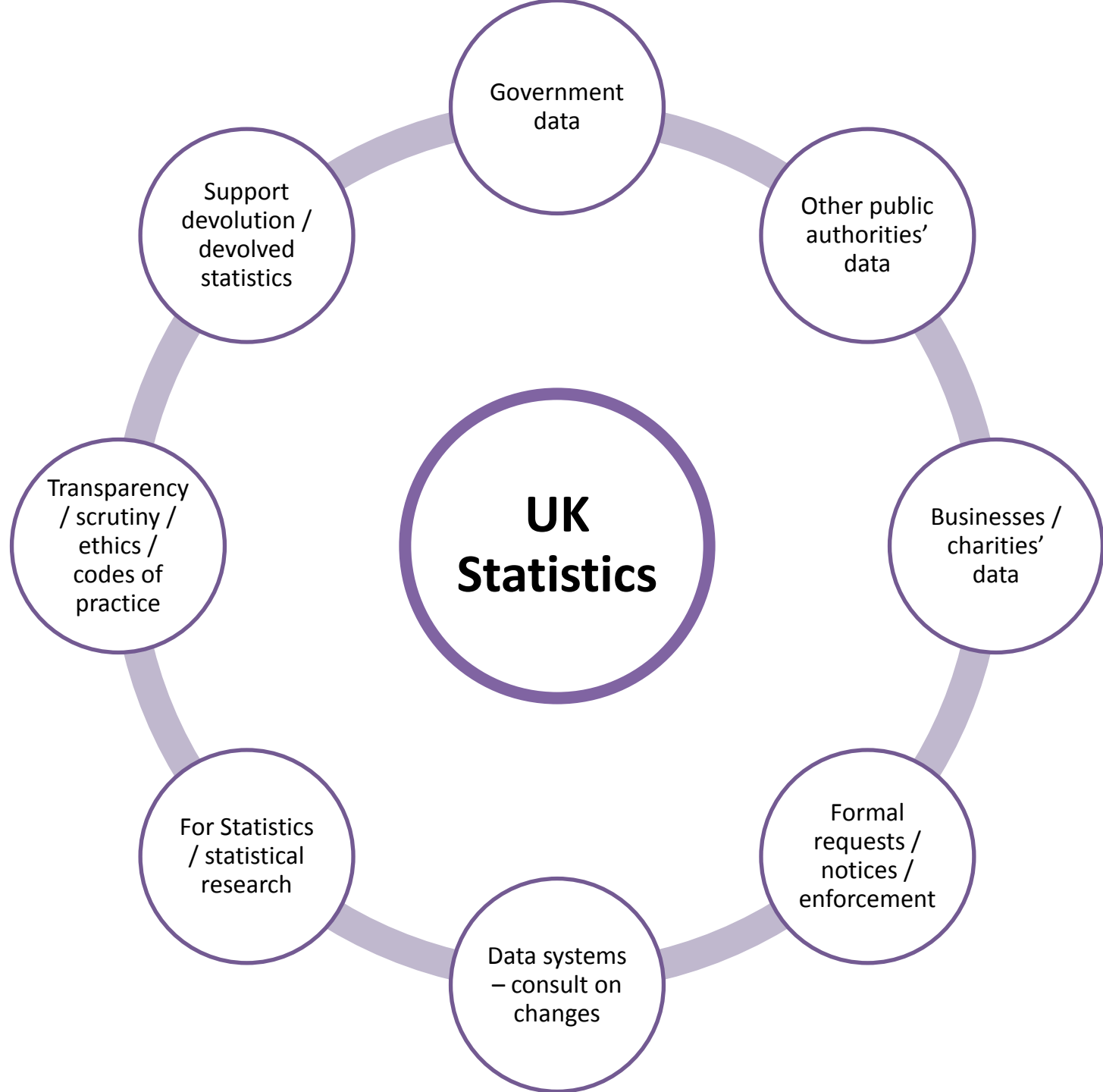
The only limit is our imagination.











**UK
Statistics**

Government
data

Other public
authorities'
data

Businesses /
charities'
data

Formal
requests /
notices /
enforcement

Data systems
– consult on
changes

For Statistics
/ statistical
research

Transparency
/ scrutiny /
ethics /
codes of
practice

Support
devolution /
devolved
statistics

Trust

Transparency

- Regulation – trusted independent parties regulate the production of Official Statistics
- Statistics are explained
- Inaccurate representation is challenged
- Vision: Democratisation
 - (Safe) Public access to data
 - Public access to the Methods Library

Code of Practice for Official Statistics

January 2009

Edition 1.0

Consists of Eight Principles

1: Meeting User Needs

**2: Impartiality and
Objectivity**

3: Integrity

**4: Sound Methods and
Assured Quality**

5: Confidentiality

6: Proportionate Burden

7: Resources

**8: Frankness and
Accessibility**

For illustration quotes from principle 4

“seek to achieve continuous improvement in statistical processes”

“official statistics are produced to a level of quality that meets users’ needs”

“adopt quality assurance procedures”

“users are informed about the quality of statistical outputs”

“publish quality guidelines and ensure staff are suitably trained in quality management”

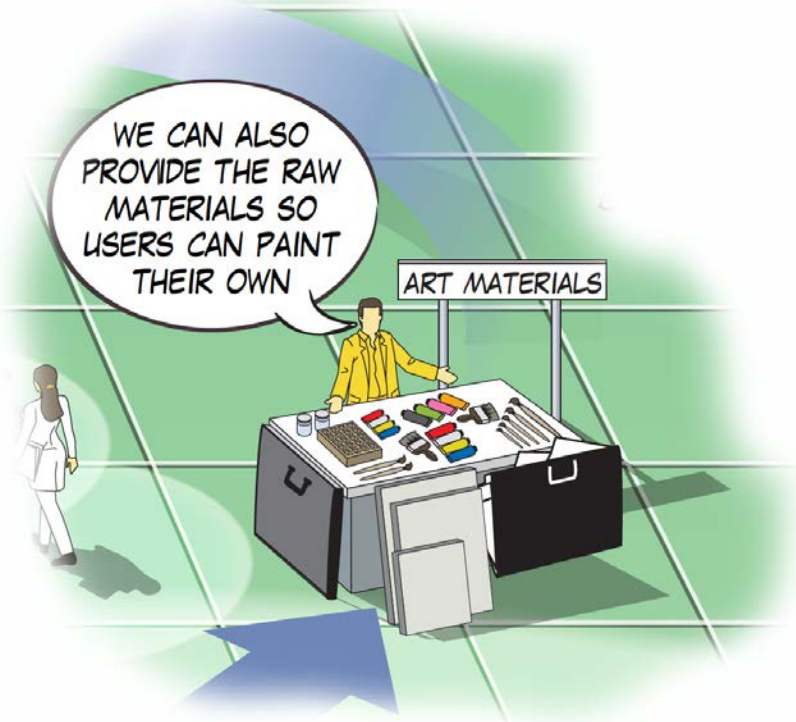
“official statistics are produced according to scientific principles”

“promote comparability within the UK and internationally”

“...produce consistent historical data where possible”

Public Asset

Link: provision of raw materials story



Open data can be provided in its raw (anonymous) form to allow users to paint their own picture of the challenges facing the UK.

We will release increasing amounts of open data free to users.

Secure Research Service (formally VML)

- **Collected survey data**
- **De-identified data from across government**
- **Approved Researcher Scheme**
 - Access to data that cannot be published openly, used for statistical research purposes,.
 - Accredited person and approved research proposal separately
 - Private Sector Researchers can be approved provided research serves the public good
 - List of all accredited researchers will be published
 - Details of research projects published to promote greater transparency
 - Accredited researchers must agree to publish the results of all relevant research

Spectrum of Data Access

<i>Type of access</i>	None (Internal)	Controlled conditions	Safeguarded measures	Full (Public)
	ONS	<i>i.e. Virtual Microdata Laboratory</i>	<i>i.e. End User Licence</i>	OGI
<i>Level of Detail</i>	Source data	Most data, detailed geographies	Variables collapsed, limited geographies	Variables and geography ensure no disclosure
<i>Purpose</i>		Statistical		Any
<i>Anonymisation</i>		Little		Full
<i>Restrictions on users</i>		Many		None
<i>Output Checking</i>		Complete		None

High

Risk

Low

Personal Information lawful gateway required (Approved Researcher)

Distribute Access

Distribute Data



Methodological Transparency

Building a Methods Library

- Rationalise and standardise methods
- Document and specify scope of methods
- Ensure that most appropriate methods are used
- Increase reuse of methods
- Specify how library is to be used

Note that this library is a large “elephant” which will have to be consumed in small chunks