



Office for
National Statistics



UN GWG GP Committee



Tech Partners



Global Platform: How we got here



UNSC Remit
World Data Forum
January 2017



Our Vision
A Global collaboration to harness the
power of data for better lives
[14/07/2017]

WORK STREAMS

WS1 Governance

Define the business operating model for the GP and make the business case for the GP taking into account the legal structure of the GP, legal and regulatory compliance, overall governance, structure of partner agreements, the customer network and the options for long-term sustainable financing



WS2 Data Policy and Common Technology Framework

Draft and seek endorsement by the statistical commission of a data policy framework for governance and information management including ethics, privacy, confidentiality and security, which will shape the workings of the GP. Seek endorsement for a common technology infrastructure to enable its delivery



WS3 Communications and Best Practice Sharing

Seek endorsement by the Statistical Commission of a framework for communications and best practice sharing for the GP. Overall progress towards delivering the GP will be widely communicated to encourage new partners and users to join this initiative.

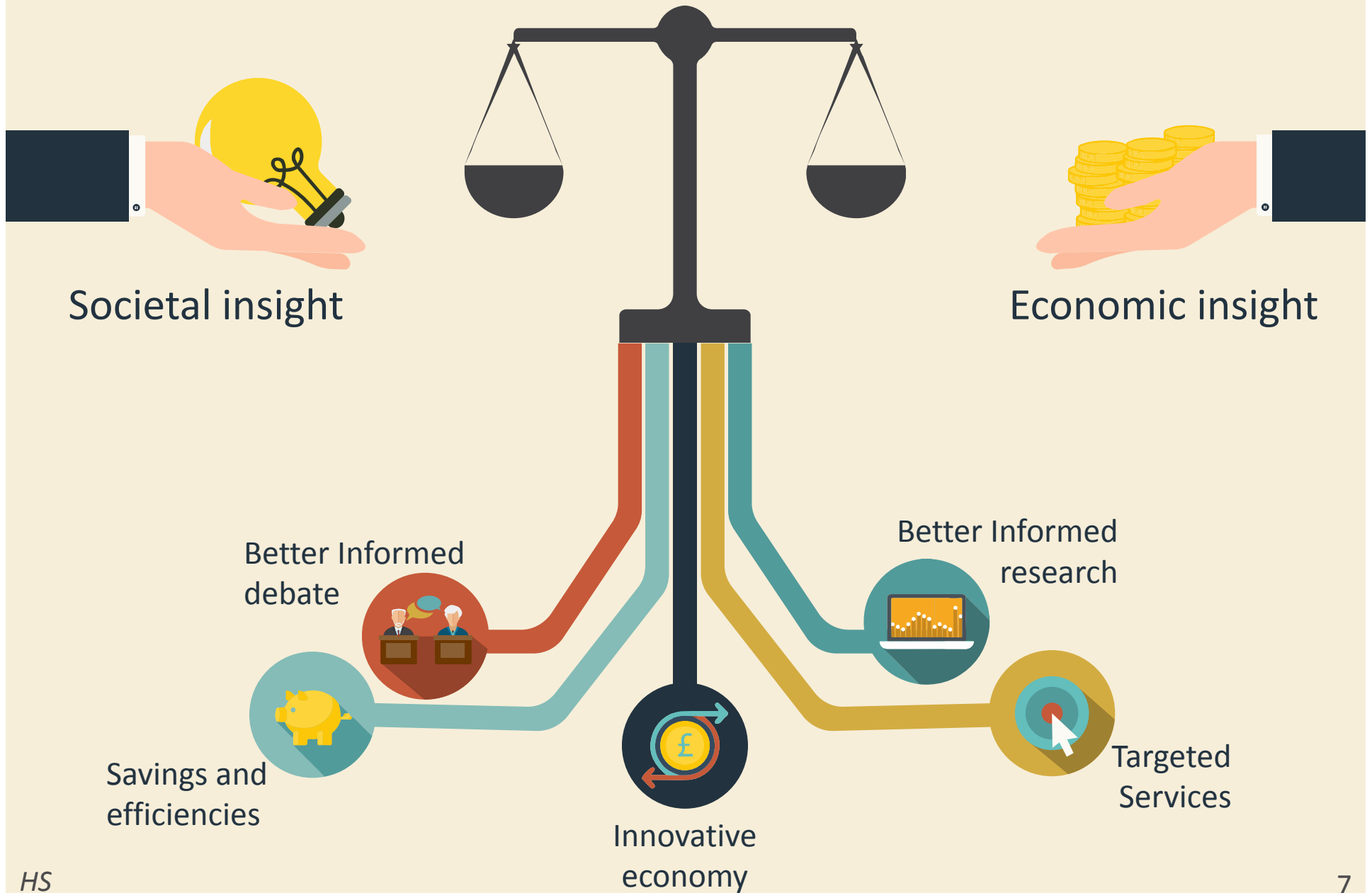


Joining up with other data initiatives



Statistical Modernisation @ONS

Data for ONS, Government and Researchers

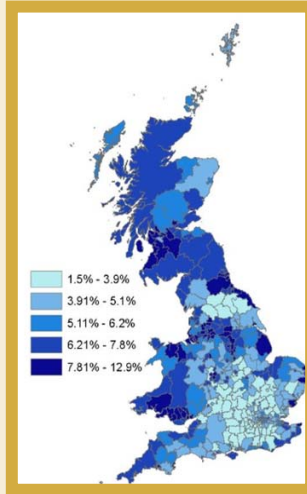




Targeted Service Delivery

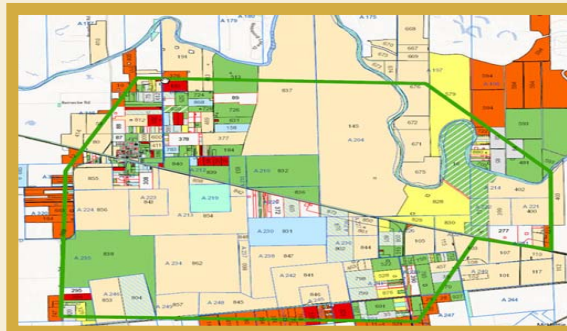
Clustering

- Better policy decisions based demographics and geography



Better Informed Public Debate: Migration

- Confused and mixed messaging from different sources
- Collaboration between ONS and OGDs
- Clearly present and explain all information



Service integration: DfE/CLG Land Availability Tool

- Identify possible sites for new free schools

Reduce reoffending rates

- Assess interventions

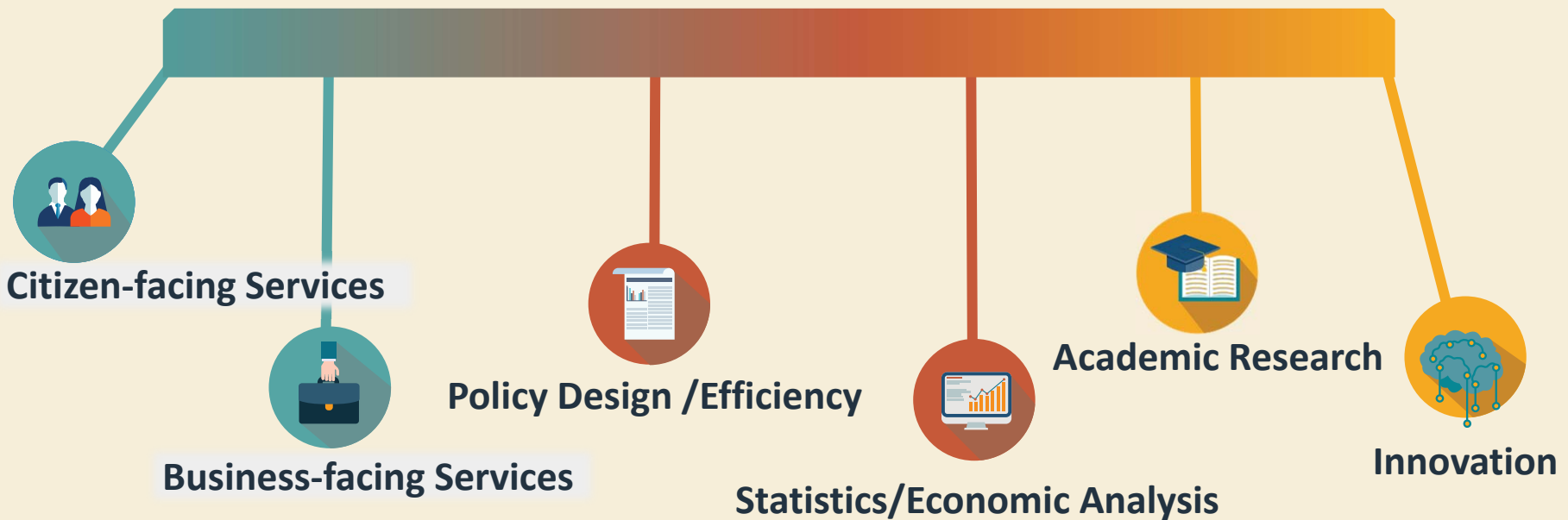
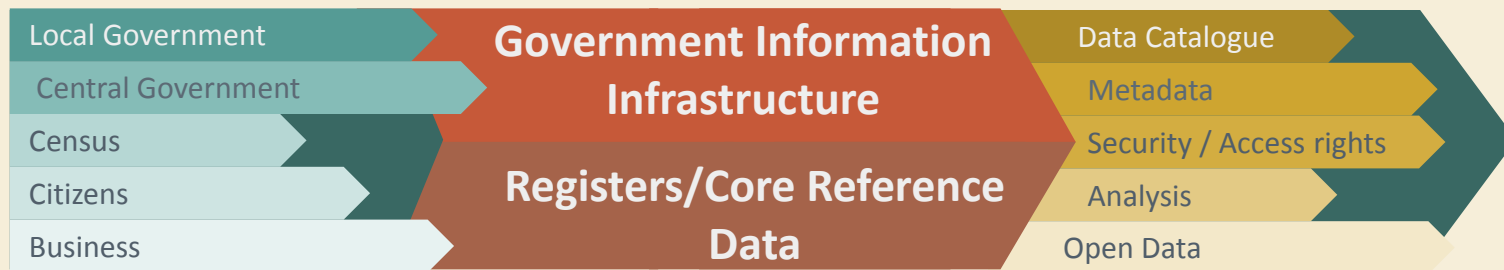


Better policy decision : Flow of funds

- Closer monitoring of financial flows
- Reduce risk of another financial crisis
- Asset and liability position by sector
- One sectors liabilities are spread across economies



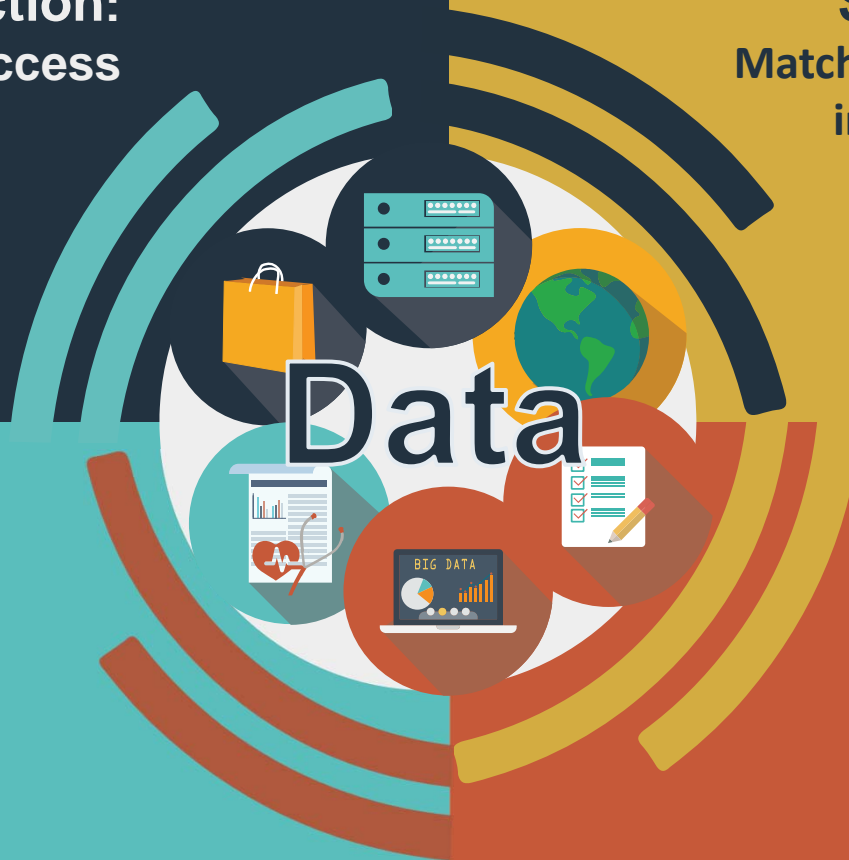
Data Infrastructure: delivering a critical resource



The challenge: multiple user lenses across data estate

Statistical production:
Secure, in-house access
ONS staff





Statistical services:
Match, link, anonymise data:
internal and 3rd party use



Statistical research:
Working in partnerships, project-
based access

3rd party disclosure:
Accredited research and
statistics

Data use and access

IDENTIFIED 
 SAFE 
 UNRESTRICTED ACCESS 
 CONTROLLED ACCESS 

DATA IN

ACQUIRE



STATUTORY

SRSA (inc ISOs)
 DEA
 STA (business)
 RSA (registration)
 VAT/finance acts

Voluntary Surveys
 Non-controlled admin data
 Commercial partnerships
 Open data

NON-STATUTORY



PREPARE

METADATA



DATA LIBRARY



STATISTICAL METHODS DEVELOPMENT

ANALYSE

STATISTICAL PRODUCTION



STATISTICAL RESEARCH



STATISTICAL METHODS ADVICE

3RD PARTY SERVICE



3RD PARTY DISCLOSURE



INFORM

STATISTICAL RELEASES



AD HOC OUTPUTS



INFORM POLICY



DEVOLVED STATISTICS

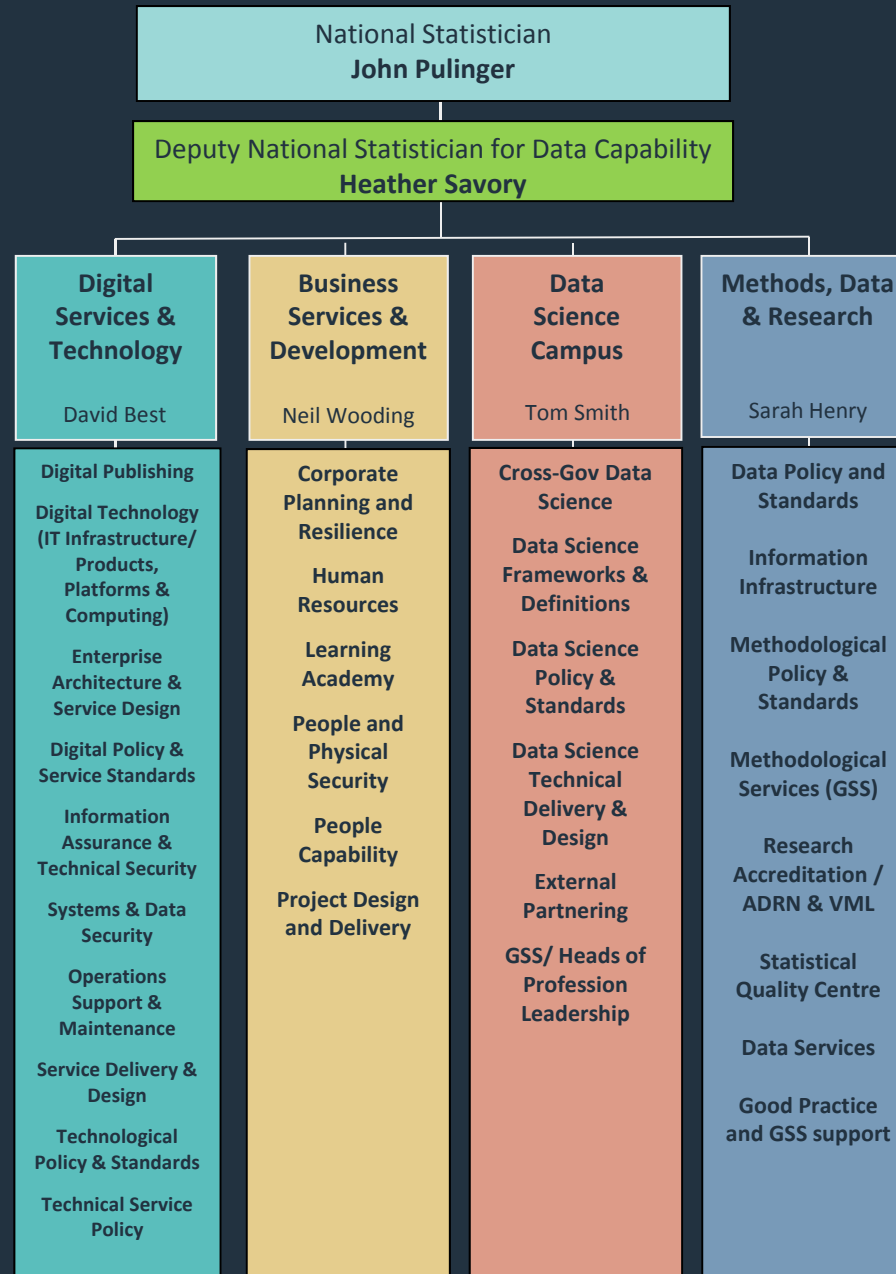


ACCREDITED RESEARCH OUTPUT



DATA OUT

Data Capability at ONS



National Statistician's Data Ethics Advisory Committee (NSDEC)

ETHICAL PRINCIPLES

Public Good

The use of data has clear benefits for users and serves the public good.



Confidentiality, data security, consent

The data subject's identity (whether person or organisation) is protected, information is kept confidential and secure, and the issue of consent is considered appropriately.



Methods and Quality

The risks and limits of new technologies are considered and there is sufficient human oversight so that methods employed are consistent with recognised standards of integrity and quality.



Legal Compliance

Data used and methods employed are consistent with legal requirements such as the DPA, the Human Rights Act, the SRSA and the common law duty of confidence.



Public views & engagement

The views of the public are considered in light of the data used and the perceived benefits of the research.



Transparency

The access, use and sharing of data is transparent, and is communicated clearly and accessibly to the public.



Active Learning



Experimentation

Apprenticeship in Data Analytics

- 2 year programme
- Level 4 Diploma-Data Analytics

MSc Data Analytics: Government

- September 2017
- Multiple academic partners
- Framework reviewed by GSS

Government Data Accelerator

- Open to Public sector staff
- Run with GDS & GO-Science
- Network “hub” @ DSC

Research Teams

- Launched September 2016
- 24 FTE
- 60 FTE projected March 2018

Partnerships

- MoUs agreed including Universities (Cardiff), research institutes (Alan Turing), international statistical institutes (Stats Netherlands)
- Collaboration with national & devolved government, e.g. DEFRA, DCMS, DFID, Welsh Government

ONS and National Addressing

Local Authorities



Royal Mail



Ordnance Survey



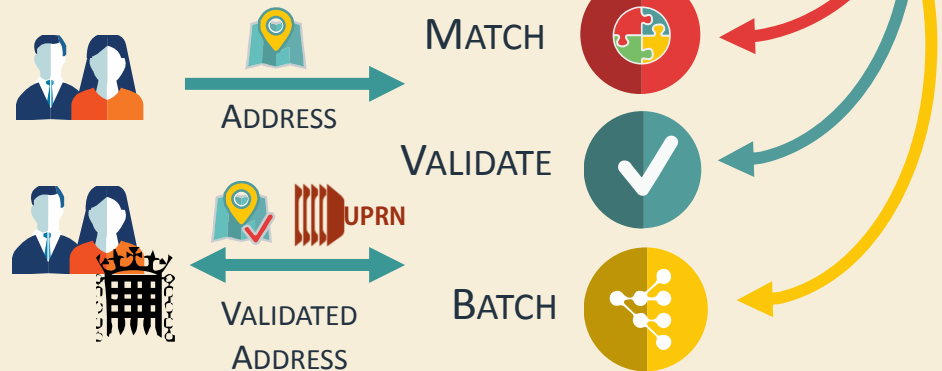
GeoPlace



UPRN

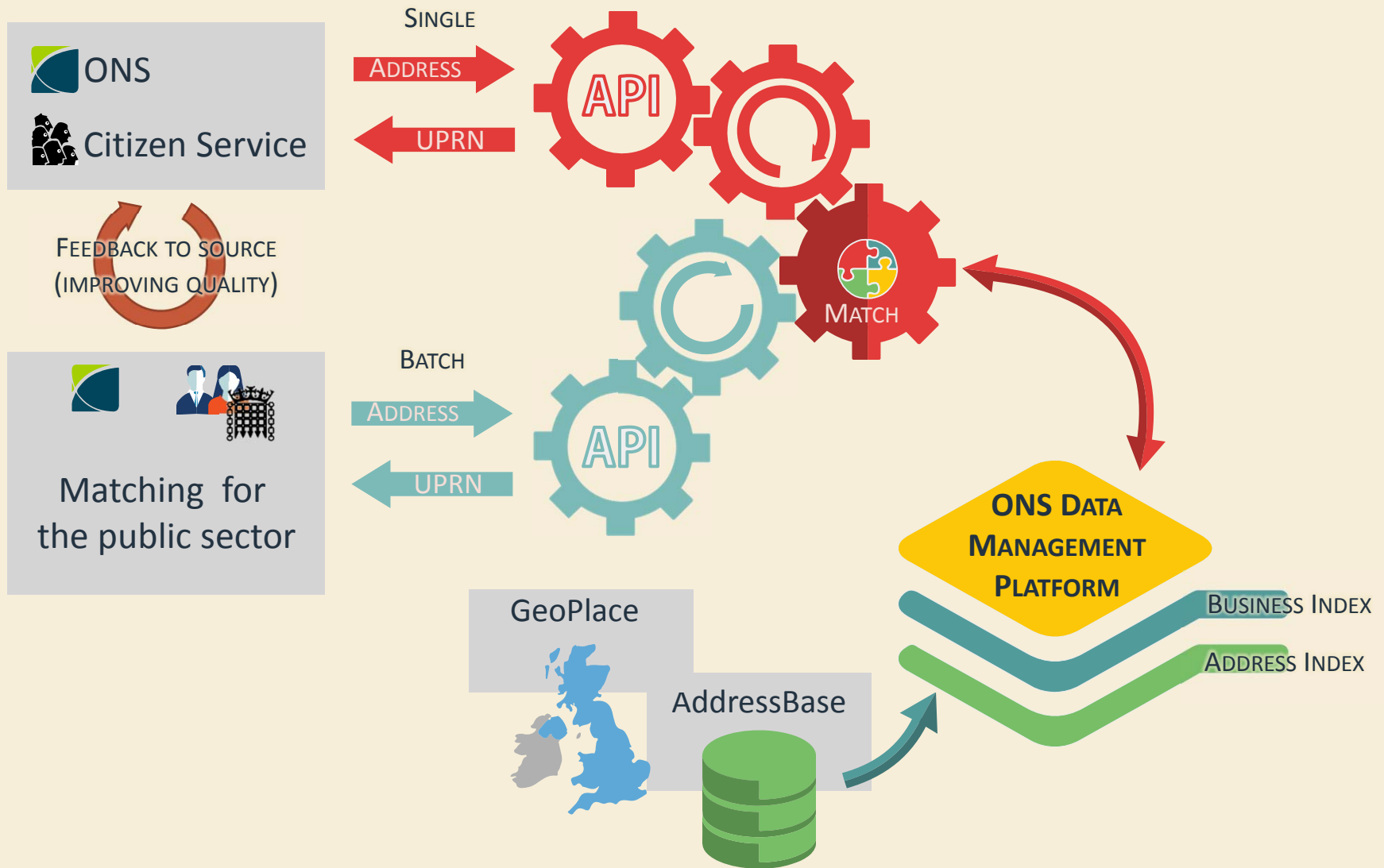


Addressing Service



Common secure services available to public sector
(and potentially wider subject to licensing)
common service > consistency & efficiency

ONS Address Matching Service



Business Index

Input

Current Data



Companies House



VAT



PAYE

Future Data

- Self assessment
- Corporation Tax
- Charities and Commissions

HS

Function

Business Index

Matching & Linking algorithm: Combines records into linked data (legal units)

Data Science



Output

Business Index Legal unit spine

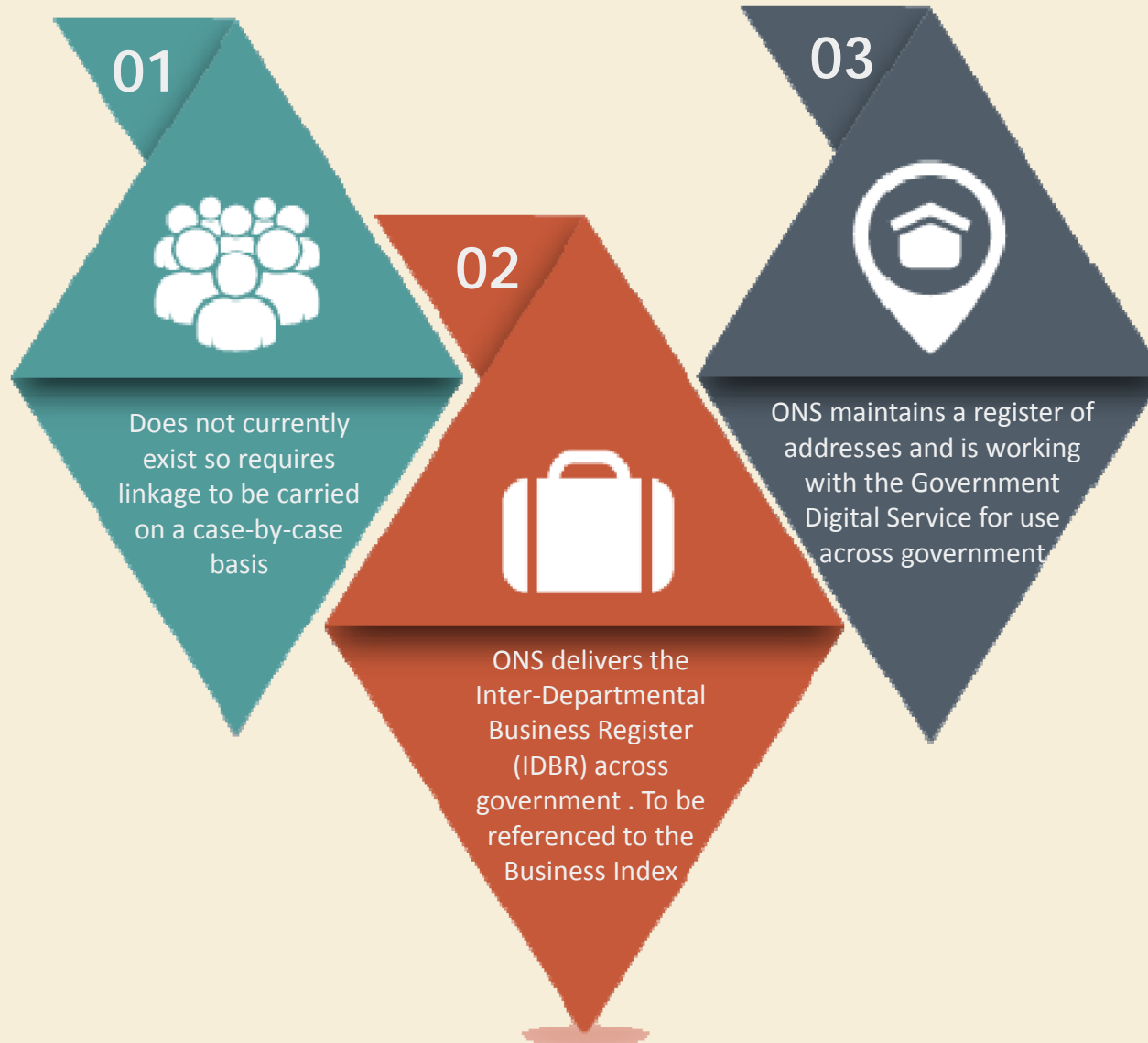


Company details

Company details

- Companies House
- VAT
- PAYE

Data Integration – 3 way index



IDEAS – A New Data Model



The Material Properties of a dataset

CONTENT

What the data describes

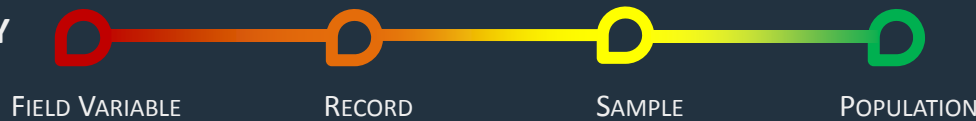
SENSITIVITY



IDENTIFIES



GRANULARITY



RECENCY



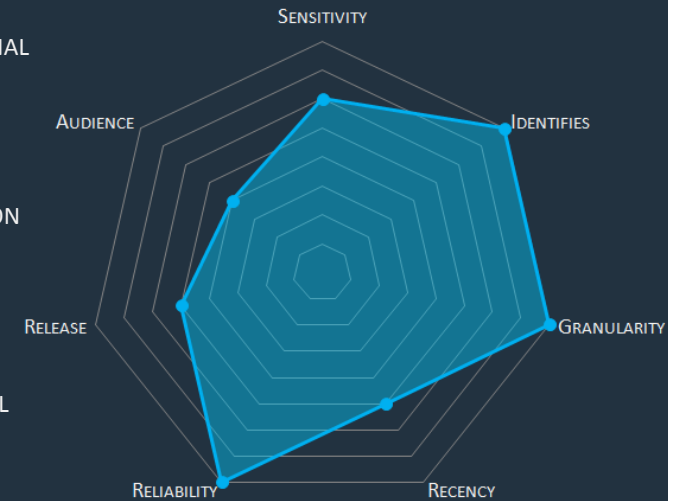
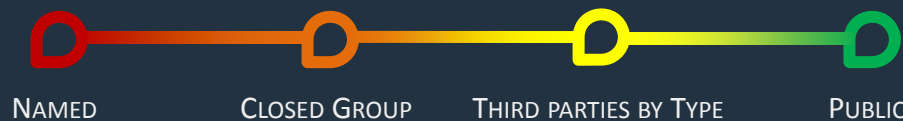
RELIABILITY



RELEASE

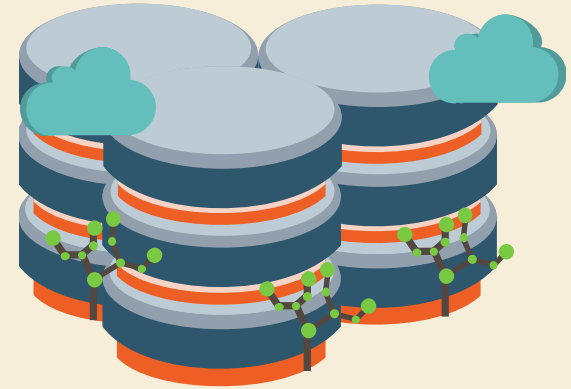


AUDIENCE





User needs



Infrastructure

WHY ARE WE HERE TODAY?



Collaboration



Data Access



Office for
National Statistics

