# Addresses make the world

## …(or at least the Location Index)…

# go around

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Office for National Statistics

# Location Index: *Context*

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## Office for National Statistics

www.ons.gov.uk

Responsible for…
- collecting
- analysing
- disseminating

…statistics about the UK's
- economy
- society
- population

Reference Data Management Framework (RDMF)



Demographic  Business  Address  Geography  Classifications

**Location Index**

RDMF facilitates:
- data linkage
- cross-index association
- indexing datasets

# Location Index: *Overview*

**Address**
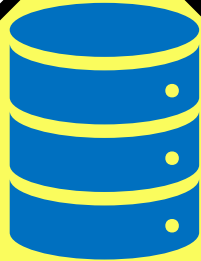**Comprehensive list of UK addresses**

**Geography**
**Statistical, Admin, Health geogs – more coming!**

**Extra! Extra!**
**Admin data for quality assurance and expanding the scope**

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# Source: *Addresses*

**AddressBase Premium & Islands (ABP/I)**

**42 million addresses
200 million cross references**
All information relating to UK addresses from creation to retirement

**Origin:**
Ordnance Survey GeoPlace

**Types of address:**
PAF (Post Office Address File)
NAG (National Address Gazetteer)

# Source: *Geographies*

## Office for National Statistics (ONS)
## **Open Geography Portal**

Free and open access
to the definitive source of:

- geographic products
- web applications
- story maps
- services and APIs

Geography lookup tables
sourced for Location Index

**https://geoportal.statistics.gov.uk/**

# Source: *Communal Establishments*

**Admin data sources for Communal Establishments**

- **Boarding Schools**
- **Care Homes**
- **Embassies**

- **Hospices**
- **Hospitals**
- **Hostels**

- **Prisons**
- **Student Halls**
- **Etc.**

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## Location Index: *Customer Views*

**AddressBase:**
- ⌂ UPRN
- ⌂ Town, Postcode, Country
- ⌂ Easting, Northing, Latitude, Longitude
- ⌂ Classification Code
- ⌂ Etc.

**AddressBase - derived:**
- ⌂ Address Lines – NAG & PAF
- ⌂ Residential status indicator

**Open Geography Portal:**
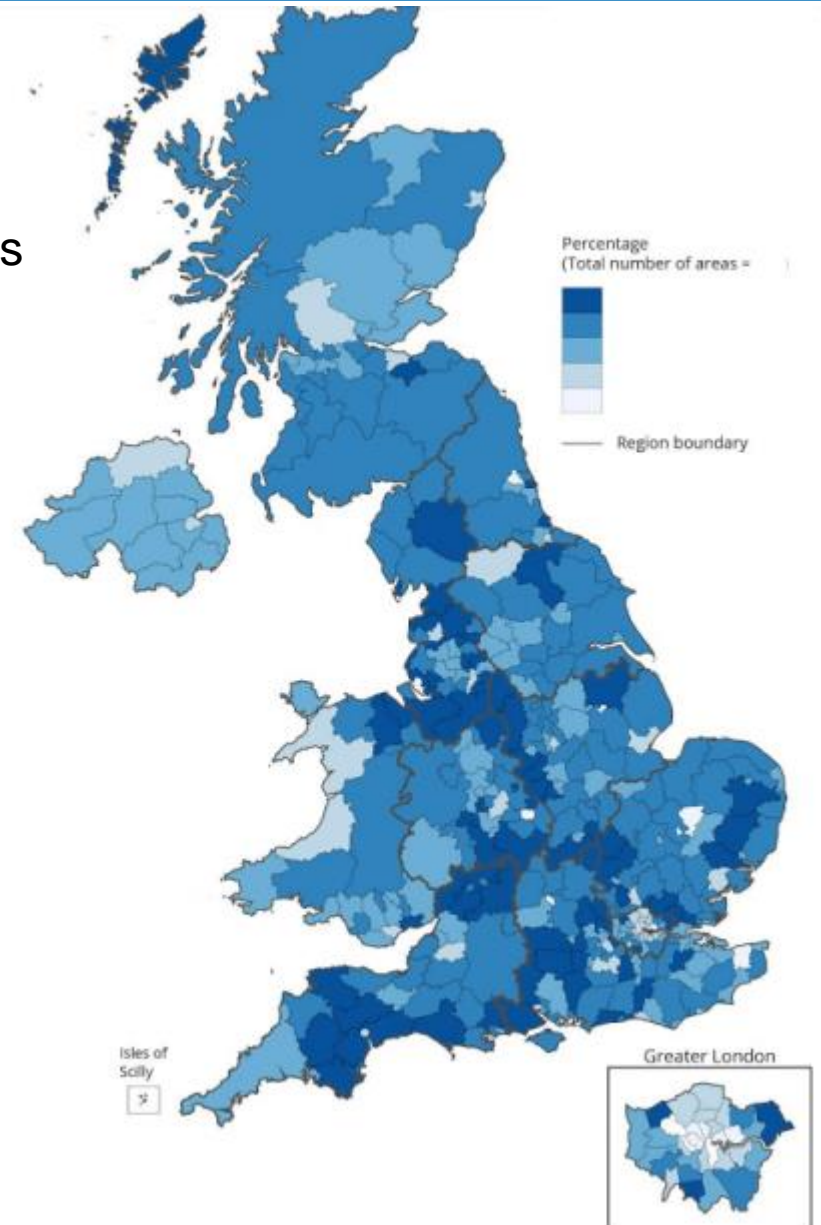- ⌂ Statistical, Admin, Health geographies, further geogs planned

**Admin data:**
- ⌂ Communal Establishment confirmation

# Putting it out there

- ## Research / Analysis of address data
  - Aggregated to grouped **AddressBase classification** codes
  - Presented according to **geographic** boundaries
  - **Time series** to highlight trends

- ## Visual presentation
  - Interactive choropleth maps, etc.

- ## Dissemination
  - https://explore-local-statistics.beta.ons.gov.uk/
  - ONS Intranet
  - ONS Website

Percentage
(Total number of areas =

Region boundary

Isles of
Scilly

Greater London

# AIMS-ing to match addresses

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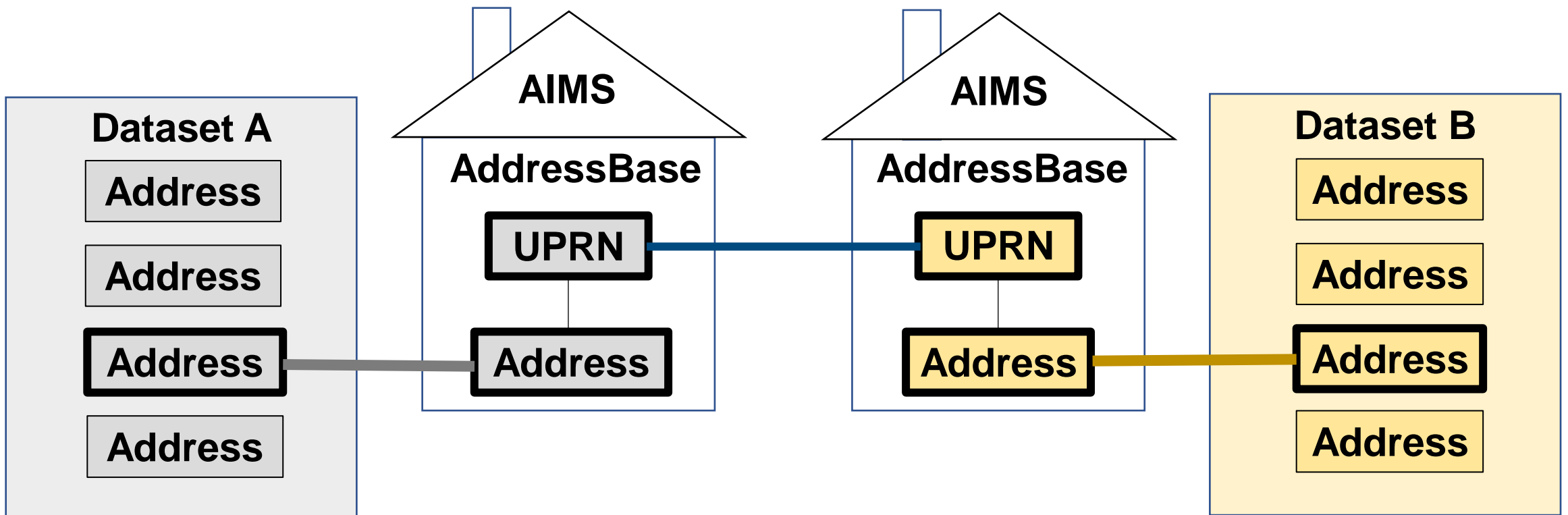
## Address Index Matching Service (AIMS)

- Data science tool developed by ONS: matches UPRN's to addresses
- AddressBase Premium / Islands as reference data
- UPRN as a standardised matchkey

# AIMS-ing for a purpose

**Census online address search**

**Bulk matching of admin data**

**User Interface (UI)**

**Integrated Data Service Platform (IDS/P)**

# AIMS User Interface (UI)

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## AIMS

**Single Search**   Single UPRN   Postcode   Typeahead   Multiple Address   Multiple UPRN   Help   Settings

### Enter search string

Specifies the address search string (e.g. "14 Acacia Avenue, Ruislip, HA4 8RG").

> Sir Matt Busby Way, Old Trafford, Stretford, Manchester M16 0RA

### Classification

To further filter your results, select a classification. You can start typing the Classification Code or the Description. (I.e. "R" or "Residential")

Unsure? **Click here to download a list of classifications.**

### Include results from the following areas:

☑ England

☐ Wales

☐ Scotland

☐ Northern Ireland

☐ Channel Islands

## Single Search

Provide as much of the address as possible for best results.

**Request Details**

M - Multiple Matches with Confidence Score above threshold

A - Accept the top result

## We matched 33 addresses:

### Manchester United FC, Old Trafford Football Ground, Sir Matt Busby Way, Stretford, M16 0RA

| | | |
|---|---|---|
| uprn | **100012675377** | ★ |
| classification_code | **CL11SD** | ★ |
| classification_code_list | **[CL11SD] [Commercial] [Leisure - Applicable to recreational sites and enterprises] [Stadium]** | ★ |
| lpi_logical_status | **Approved (1)** | ★ |
| confidence_score | **73.7368** | ★ |

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## **Location Index:** *Main Customers*

**Location data frames:**

- ⌂ Census 2021
- ⌂ Labour Force Surveys
- ⌂ Social Statistics Division (Population estimates)

**Address Index Matching Service (AIMS):**

- ⌂ Multiple ONS teams
- ⌂ Integrated Data Service Platform (IDS/P)

**Upcoming:**

- ⌂ AIMS for external stakeholders
- ⌂ Future of Population Migration Statistics (FPMS)

# A BIG thank you!

**To all the amazing people who contribute towards the Location Index source data…**

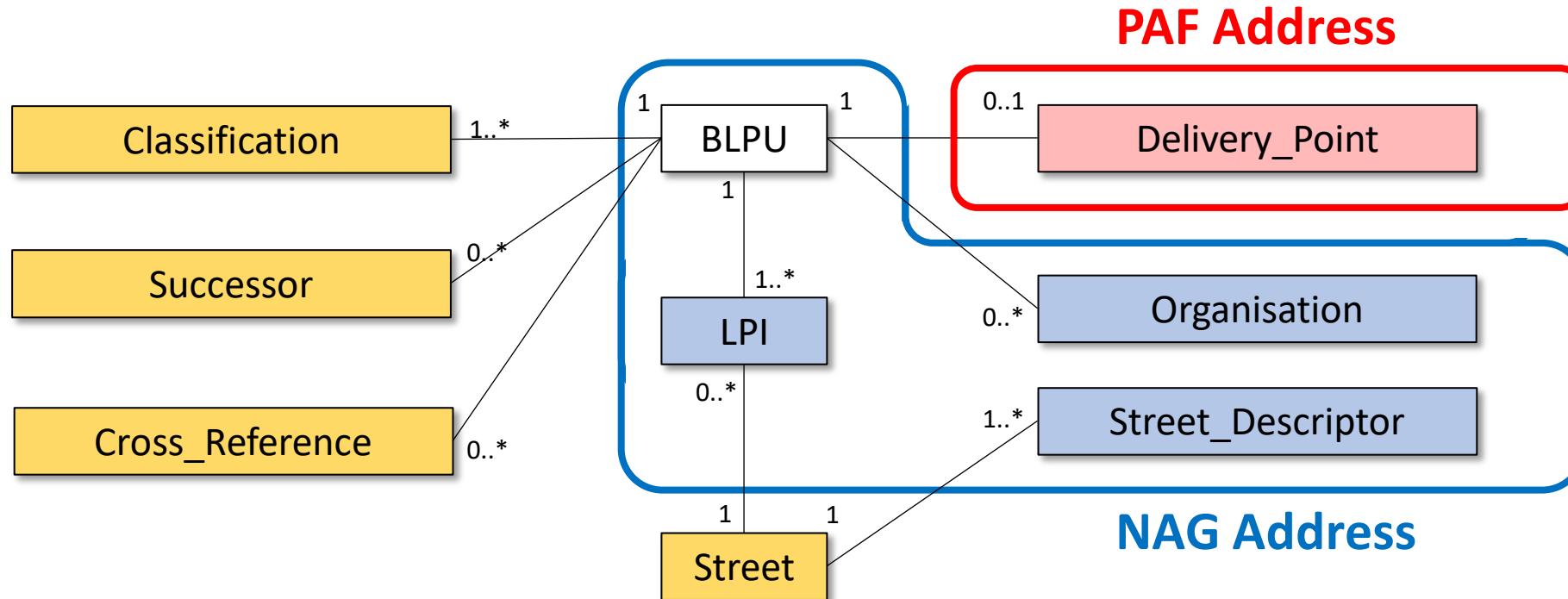🏠 **Thank you so much!**

🏠 **Keep doing what you do…**

**…so we can reach our destination**

**stephen.rowlands@ons.gov.uk**

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# Appendix: PAF & NAG addresses

**PAF Address**

**NAG Address**

- Classification
- Successor
- Cross_Reference
- BLPU
- LPI
- Street
- Delivery_Point
- Organisation
- Street_Descriptor

0..1 - zero or one record
1 - one record

0..* - zero or more records
1..* - one or more records

Images from geoplace.co.uk, ordnancesurvey.co.uk