

DUG Conference, 12 October 2011

# **Creating new information about the UK's population “Beyond 2011”**

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Beyond 2011 Programme, Office for National Statistics

# Background

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- Building Trust in Statistics (1999)
- 2001 Census
- Integrated Population Statistics System (2003)
- Statistics and Registration Service Act 2007
- Migration Statistics Improvement Programme (2008)
- Counting the Population Report (2008)

# Background

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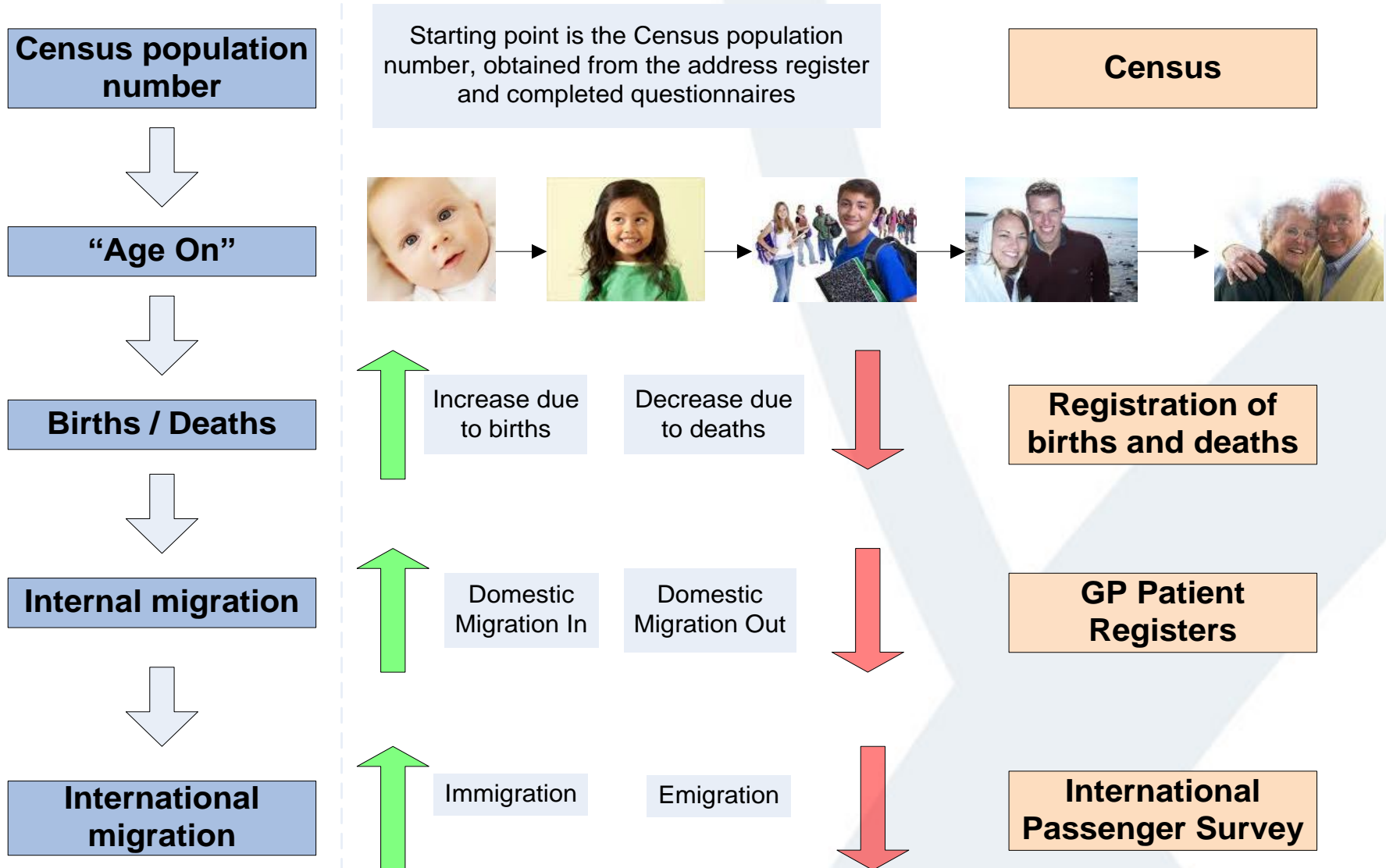
- Planning the future for socio-demographic statistics (2009)
- Current Government Elected (2010)
- Spending Review (2010)
- 2011 Census
- Beyond 2011 Programme (April 2011)
- National Address Gazetteer (NAG, 2011)

# Some Observations ....

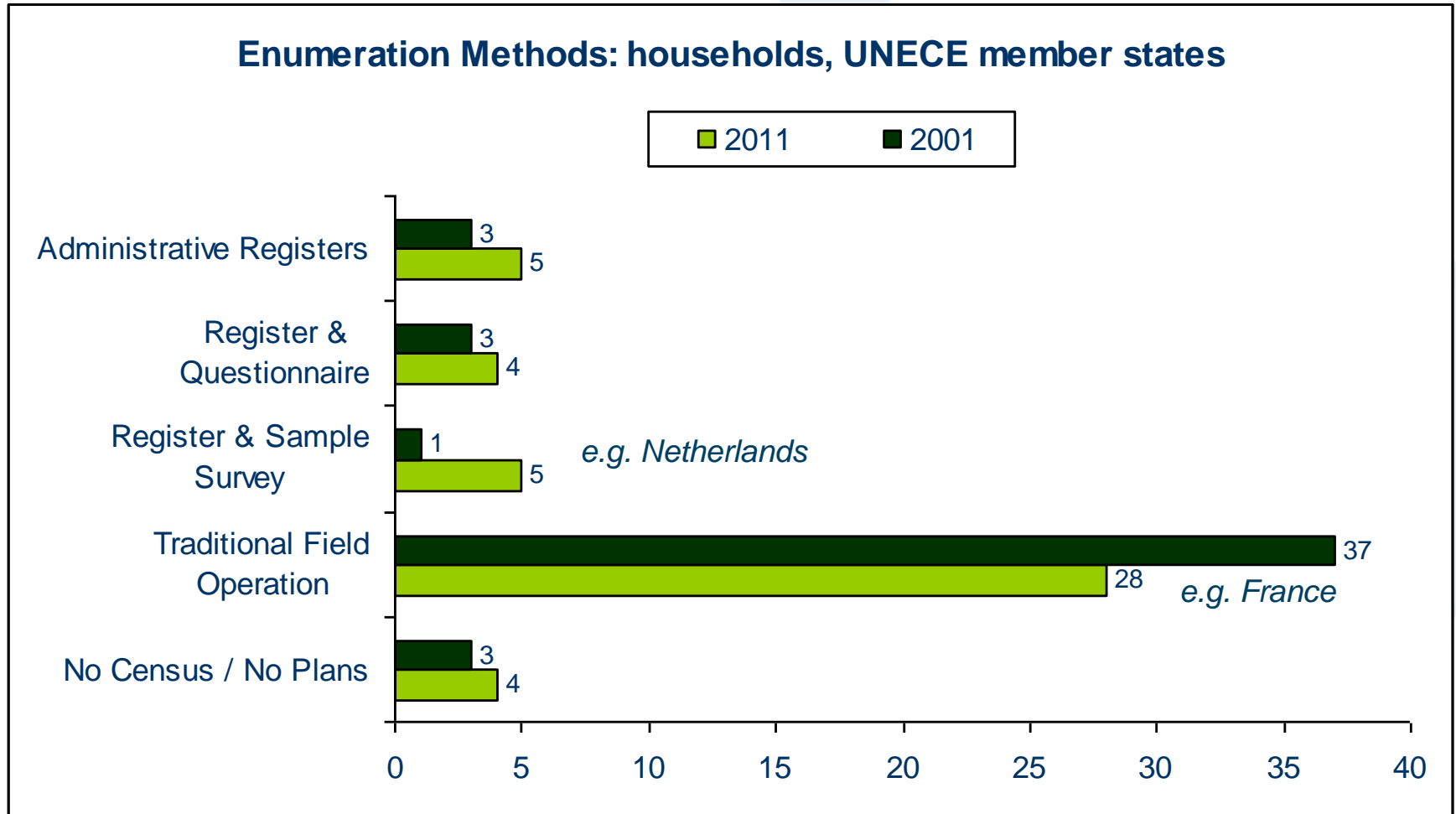
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- On a journey ..... along with other NSIs
- Based on assumption that traditional Census taking is getting more difficult and expensive over time
- Administrative sources (both public and private sector) have been getting better in scope and quality
- Improvements in access to administrative sources data, offering potential for reuse
- Infrastructure in the UK is still recognised to be poor, for example internationally, Eurostat

# Current UK population statistics



# International context



Source: United Nations

# “Beyond 2011” Programme ....

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- Recommend the best way to provide small area socio-demographic statistics in future
- Underpinned by evidence and a robust cost-benefit analysis
- Report in Sept 2014
- And then implement what is recommended

# Statistical Options ....

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- 'Census type' solution
  - Traditional Census (long form to everyone)
  - Rolling census (over 5/10 year period)
  - Short Form (everyone), Long form (Sample)
  - Headcount plus annual survey (US model)
- Administrative data + surveys
  - 100% linkage to create 'population spine'
  - Sample linkage E.g. 1% of postcodes
  - Aggregate analysis
- Survey option
  - Address register + survey

# Progress to date .... general

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- Taken the 2011 Census
- Data extracts taken at or close to Census Day
- National Address Gazetteer established
- Progressing Access to Key Administrative Data
- Analysis of Administrative Data Sources
- Conducting “Small Scale” Commercial Data Pilots
- Learning from Experts
  - Netherlands, Academic & Commercial Sectors
- Set up formal programme & links to Major Projects Authority

# Comparing Administrative Data Sources

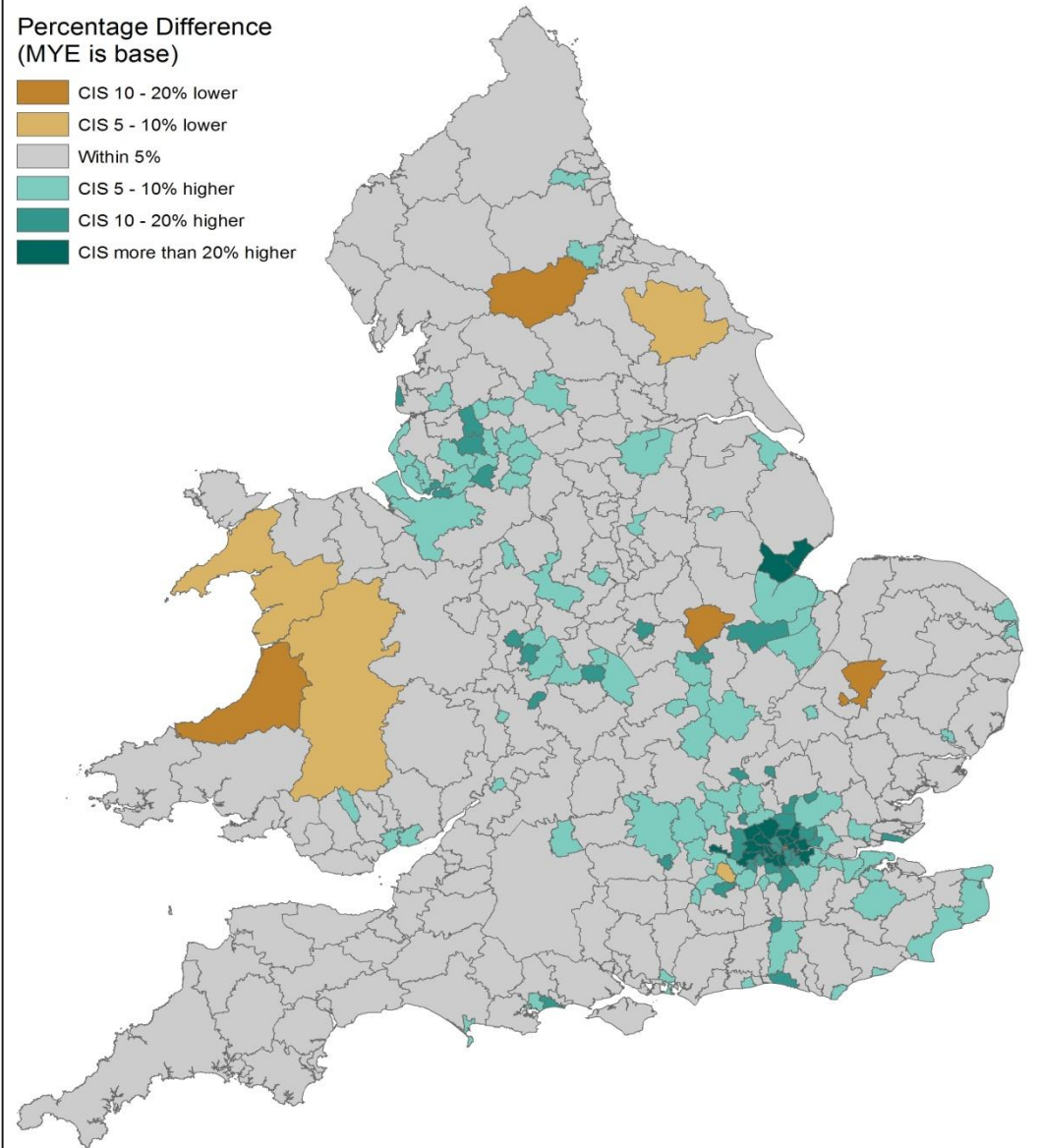
Differences between population counts from the DWP CIS in 2010 and ONS Mid Year Estimates in 2010



## Totals for all age groups

Percentage Difference  
(MYE is base)

- CIS 10 - 20% lower
- CIS 5 - 10% lower
- Within 5%
- CIS 5 - 10% higher
- CIS 10 - 20% higher
- CIS more than 20% higher



0 50 100 Kilometers

Customer Information System  
population counts compared  
with ONS Mid Year Population  
estimates

# Comparing Administrative Data Sources

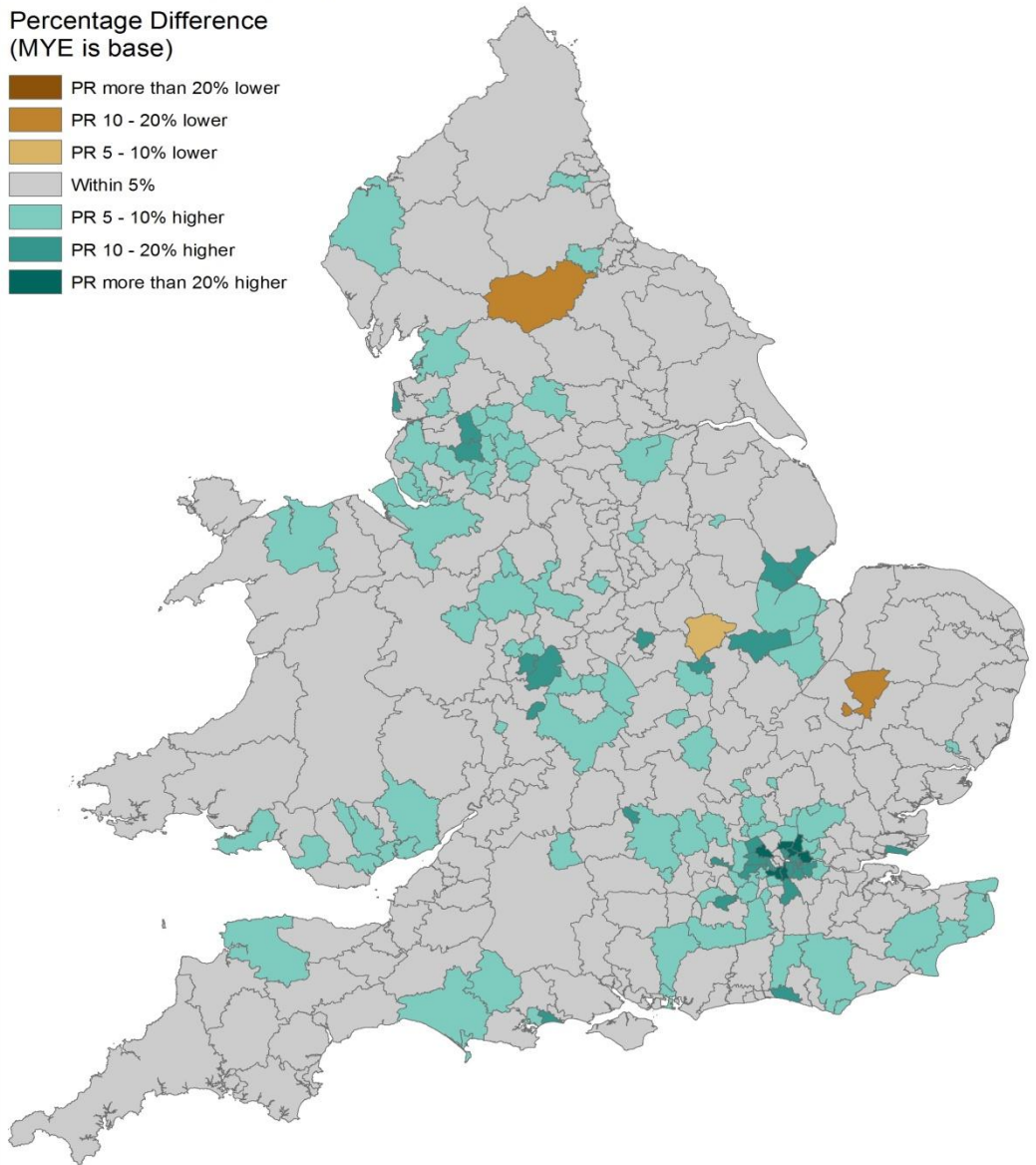
Differences between population counts from the 2010 Patient Register and ONS Mid Year Estimates in 2010



## Totals for all age groups

Percentage Difference  
(MYE is base)

- PR more than 20% lower
- PR 10 - 20% lower
- PR 5 - 10% lower
- Within 5%
- PR 5 - 10% higher
- PR 10 - 20% higher
- PR more than 20% higher



0 50 100 Kilometers

Patient Register population counts compared with ONS Mid Year Population estimates

# Comparing Administrative Data Sources

Differences between population counts from the 2010 Patient Register and ONS Mid Year Estimates for 2009



## Totals for all age groups

Percentage Difference  
(MYE is base)

- PR less than MYE
- Within 5%
- PR 5 - 10% higher
- PR 10 - 20% higher
- PR more than 20% higher



0 10 20 Kilometers

# Progress to date .... addresses

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- Good relations established with GeoPlace
- Building in Census address improvements
- Joint work programme being established
- Assessing initial version using pilot areas

## Issues:

- Improvements in quality, initially and over time
- Communal establishments
- Impetus needs to continue

# Progress to date .... data sharing

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- “Collect Once, Use/Reuse many times”
- ONS has access to some Government data for statistical purposes
- Can use powers under the Statistics Act to get access but time consuming for everyone
- Data sharing orders for ONS to access the School Census (Wales) and Customer Information System
- Need refined system on access to administrative data for statistical purposes

# Some thoughts on scope .....

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“Managing Expectations” but Taking Our Opportunities ...

Might well imply:

Scope, Accuracy, frequency, timeliness, geography & trade-offs;

Research into the feasibility of using alternative data sources from commercial companies and from the internet to understand, assess and potentially improve population and socio-demographic outputs;

Greater reuse of data from administrative sources.

Won't automatically imply but may help facilitate:

Open data/transparency - no implied additional availability or gateways to data;

Additional use of administrative data for research purposes, including private sector;

Quicker data - lower quality data with revisions later.

How should the user/statistics community respond to Beyond 2011?

# Public Consultation

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- October 2011 to January 2012 - user focussed
  - Trade-off between accuracy, frequency and level of geography
  - Changes** in policy needs / priority for population characteristics since previous consultations
  - Alternative sources for specific topics
- On-going engagement 2011-2014
- 2013 - wider public consultation
  - Possible solutions
  - Green paper?

# Key risks

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- Harmonisation of UK outputs
  - Accountability under European law
- Decision making / securing required legislation
  - Political risk
  - Many influential stakeholders
- Technical
  - Go with alternative and doesn't succeed
  - Changes in administrative datasets

# Observations .... Netherlands experience

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- Registers and administrative sources
  - access guaranteed for statistical purposes
  - must not collect data if data of appropriate quality exists elsewhere
  - on relevant admin sources boards re: changes
- Overcame public resistance
  - Unique statistical identifier avoids disclosure of personal details
  - No “big brother” database - “satellite” system
- Scope and quality of information
  - Accepted loss in “breadth and quality”
  - Assessment system on quality of administrative sources
  - Web data collection system
- Great interest internationally in UK research

# Summary

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- Opportunity for radical change
  - Reforms of national and historic significance
  - Need for broad acceptance of the alternative(s)
  - Future users and uses
- Essential engagement and support
  - Users and statistical community support
  - Political and legislative
  - General public acceptability
- Limited window for opportunity