

Facilitating research: the role of UBDC and the ESRC Big Data Network

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Big Data Network

“Our objective is to champion, and unleash across Scotland, trustworthy uses of data for public benefit”

Scottish Government (2014) *A data vision for Scotland*

“Government needs to do more to unlock to power of data”

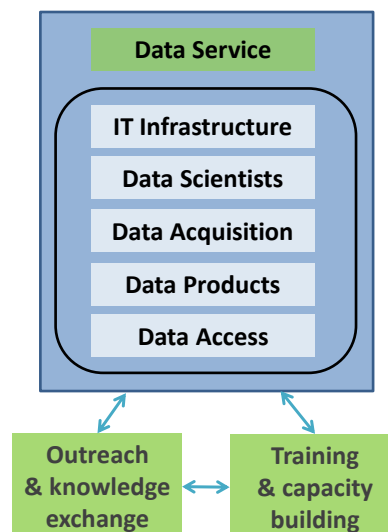
Cabinet Office (2016) *Better use of data: consultation paper*

- ESRC investment in Big Data Network
 - Phase 1: Admin Data Research Network
 - Admin Data Research Centre - Scotland
 - Phase 2: Local Govt and/or Business
 - Urban Big Data Centre



UBDC

- “Promoting the use of innovative methods and complex urban data to address challenges facing cities”
- A data service connecting **researchers** to **data** for high-quality scientific and policy-relevant research
- Free to researchers



Urban Big Data

Naturally-occurring data – not created for research purposes

Urban Big Data	Types	Examples
Public admin	Aggregate data on services or facilities; confidential person-level data from service use	Social care and health service use
Business data	Customer transactions; facilities and resource management	Tenancy deposit data Private rental adverts
User-generated content	Participatory sensing systems, social media, web use, GPS, online social networks	GPS sensors and lifelogging (iMCD)
Physical and infrastructure data	Road traffic sensors; air quality sensors; CCTV; weather and forecast data; satellite image	Weather forecasts Traffic flows

Why use administrative data

- Cheap compared to surveys
 - But not free – time investment by researcher
- Scale - often cover 100% of target population
 - Scope to look at rare events, small sub-groups, geographic variations
- Tool for policy analysis – joined-up policy making, preventative spend
 - Track individuals across multiple domains and over time
- Powerful in combination with other data e.g. surveys

