

# Local Data Ecosystem

## and the Smart City Concept Model

Greater Manchester IT Managers

Salford, 8<sup>th</sup> April 2014

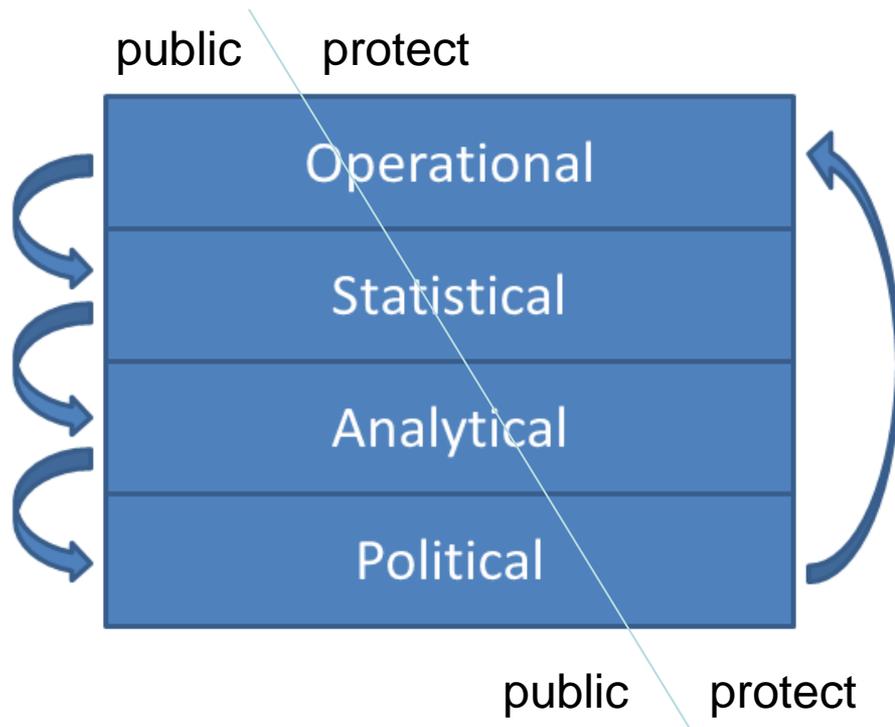
Paul Davidson, CIO Sedgemoor District Council  
Director of Standards for the Local eGovernment Standards Body (LeGSB)

- Operating since 2006
- Funded by Central Government Departments – currently
  - Department for Communities and Local Government (*DCLG*)
  - Department for Work and Pensions (*DWP*)
  - Department for Business, Innovation and Skills (*BIS*).
- Mission
  - To promote Standards for Efficiency, Transformation, and Transparency of Local Services
- People
  - All personnel are employees of local authorities, and central government departments.
- Web Site
  - <http://www.legs.gov.uk>

# A Local Data Ecosystem

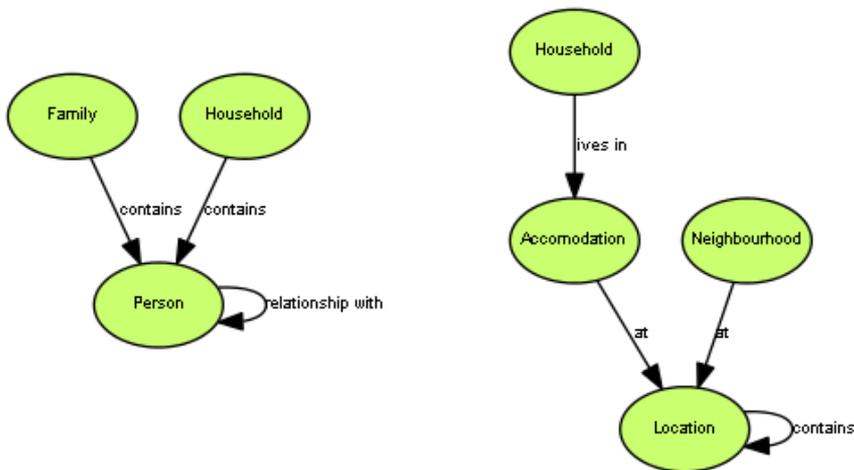
- February 2014, the Open Data User Group awarded funding to Tameside Council, to develop a 'Local Data Ecosystem', illustrated using a 'Troubled Families' theme.
- The 'local data ecosystem' will contain
  - role based access to a multi-agency secure case management system
  - community access to a 5\* open data publishing platform
  - personal data access via personal data store
  - dashboards for various stakeholders
- Data will flow across the components via common standards and frameworks.
  - **Semantics** the meaning of information
  - **Syntax** the format of information
  - **Data Quality** the confidence to re-use information
  - **Rights** the right to use information
  - **Authentication** who is accessing information
  - **Transport** how to move information
  - **Information Governance** the behaviour and culture to protect and exploit information

# Context

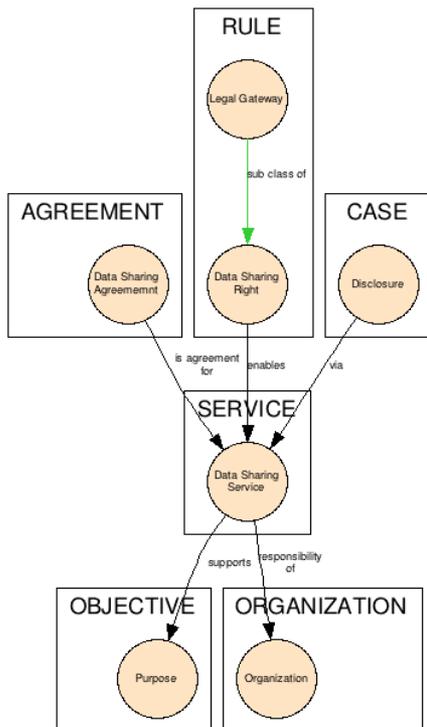


- OPERATIONAL - Data about real people and places, with real needs and circumstances, using real services, i.e. case work
- STATISTICAL - Aggregated operational data – organised using common classifications and segmentations
- ANALYTICAL - The conclusions drawn from an analysis of statistical data
- POLITICAL - The decisions taken to shape services, e.g. budgets, strategies, priorities, targets etc.

- The Smart City Concept Model
  - funded by BIS, as a BSI Publicly Available Standard PAS182
  - currently at public consultation stage with BSI.
  - relevant where many **ORGANIZATIONS** provide **SERVICES** to many **COMMUNITYs** within a **PLACE**.
  - <http://drafts.bsigroup.com/Home/Details/52864>
  - <http://www.smartcityconceptmodel.com>
    - pas182, c0ncepts13
- Extensible Data Dictionary
  - Define the classes/properties/vocabularies for a theme, e.g. Troubled Families
  - Reuse them for other themes, e.g. dementia , early years, potholes



- Establishing a right to data
  - For data to be shared, the data controller needs to be assured that
  - A **person** is empowered by their **organisation** to act in a **role** that has a **right** to a **set of data items** for a **purpose**, and agrees to the **terms** by which the data is to be used and handled.
  - define the 'purposes' for which data was originally collected;
  - define 'purposes' for which data may be re-used;
  - define the 'terms' for access to data;



class Data Sharing Service id 2

Name Data about school exclusions.

Description

Links Changes Export

Links

supports

Purposes

id	Title	Description
1	identifying troubled families.	Troubled Families are identified from national criteria about * Crime and Anti-Social Behaviour * Education * Work ... and locally set criteria.

is enabled by

Legal Gateways

id	Name	Description
4	Section 17 of the Children Act 1989.	School attendance data is covered by Section 17 of the Children Act 1989. Local authorities may collect and share this information under these implied powers in order to support/protect children.

As the data shared is likely to be considered 'sensitive' (under the terms of the DPA), authorities should only share this data for the purposes of identifying their troubled families.

- Syntax for data in the local data ecosystem
  - Data will be stored as a series of triples in named graphs, in RDF format
  - See - <http://www.legsb.gov.uk/wp-content/uploads/2013/04/LeGSB-PublishingLocal5StarData-Rev4.pdf>
- Syntax for import information
  - Data will typically originate in a computer system, or in a spreadsheet.
  - The 'local data ecosystem' will have facilities to
    - map source data to the Data Dictionary
    - transform and import data
- Syntax for querying and extracting data from the local data ecosystem
  - The ability to extract data will be restricted based on the rights/authentication/transport/governance parts of the framework.
  - The local data ecosystem will be query-able using
    - SPARQL, as a general query language
    - Search parameters using terms from the Smart City Concept Model, and the extensible Data Dictionary
  - Data will be extracted in a variety of syntaxes including
    - flavours of RDF;
    - Csv
    - Xml
    - Json
    - html

- Provenance
  - Provenance information describes the processes and actors that data has passed through, such as collection, verification, audit, aggregation and so on.
  - The 'local data ecosystem' will include a standard structure for describing the provenance of each dataset, and each statement
- Fitness for Purpose
  - Provenance information describes expectations such as precision, accuracy, timeliness, completeness and so on.
  - The 'local data ecosystem' will include a standard structure for describing the fitness-for-purpose of

# Thank you

- Paul Davidson
  - [paul.davidson@sedgemoor.gov.uk](mailto:paul.davidson@sedgemoor.gov.uk)
  - Director of Standards for the Local eGovernment Standards Body (LeGSB)
  - <http://www.legsb.gov.uk>