

# Data Quality Policy

**Implementation date: 04 October 2016**

## Control schedule

<b>Approved by</b>	Corporate Policy and Strategy Committee
<b>Approval date</b>	04 October 2016
<b>Senior Responsible Officer</b>	Edel McManus, Data Services Manager
<b>Author</b>	Edel McManus, Data Services Manager Kevin Wilbraham, Information Governance Manager
<b>Scheduled for review</b>	October 2017

## Version control

Version	Date	Author	Comment
0.1	05-09-2014	Kevin Wilbraham	Circulated for comment
0.2	17-09-2014	Kevin Wilbraham	Agreed by Information Council
1.0	30-09-2014	Kevin Wilbraham	Approved by CP&S
1.1	28-08-2016	Edel McManus	Major revision to reflect organisational change and strategic priorities
1.2	03-09-2016	Edel McManus	Agreed with Head of Strategy (Interim)
2.0	04-10-2016	Edel McManus	Agreed by CP&S

## Committee decisions affecting this policy

Date	Committee	Link to report	Link to minute
30-09-2014	Corporate Policy & Strategy	<a href="#">Information Governance Policies</a>	<a href="#">Minute</a>
04-10-2016	Corporate Policy & Strategy	<a href="#">Information Governance Policies</a>	<a href="#">Minute</a>

# Data Quality Policy

## Policy statement

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- 1.1 The City of Edinburgh Council (the Council) needs reliable, relevant, accurate and timely data to help deliver services and to account for its performance. Data quality is a key element of the Council's Information Governance Strategy and this policy sets out the Council's commitment and approach to improving its creation, management and use.

## Scope

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- 2.1 This policy relates to:
  - 2.1.1 All Council data and information collection activities.
  - 2.1.2 Council staff, including temporary staff, contactors and consultants that create, use and manage data.
  - 2.1.3 All third parties that create, process and use data on the Council's behalf when carrying out a statutory function or service.

## Definitions

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- 3.1 The definitions below cover specific terms and descriptions used in this policy.
- 3.2 **Data:** the raw input from which information of value is derived.
- 3.3 **Data quality:** recognition that the accuracy, coverage, timeliness and completeness of data can significantly impact on the value of its use.
- 3.4 **Data stewards** are nominated by Information Asset Owners with operational responsibility for information assets within their respective service areas. This will involve the application of information governance rules, and the up-dating of Council data and records to help ensure data integrity and quality.
- 3.5 **Information asset:** a body of information defined and managed as a single unit so it can be understood, shared, protected and exploited effectively.
- 3.6 **Information asset owners:** senior officers involved in managing a business area(s) with responsibility for the information assets within their respective business area(s).
- 3.7 **Open data:** data that is accessible (usually via the internet), in a machine readable form, free of restriction on use. It supports transparency and accountability, effective services and economic growth.

- 3.8 **Data Warehouse:** a storage architecture designed to hold data extracted from transaction systems, operational data stores and external sources. The warehouse then combines that data in an aggregate, summary form suitable for enterprise-wide data analysis and reporting for predefined business needs. The Data warehouse toolsets will enable data profiling, modelling, analytics and monitoring to support data quality management.

## Policy content

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- 4.1 Data quality is concerned with producing information that is 'fit for purpose' and available when required. It supports service provision and the Council's business operations by ensuring that any data collected, used, recorded and shared is accurate, complete and reliable.
- 4.2 It also ensures that Council decisions are based on reliable management and performance information, and provides confidence when benchmarking or producing reports and statistical analysis for internal and external audiences.
- 4.3 The production and availability of high quality data also supports the Council's objectives to be open and transparent, and aligns closely with the Council's open data strategy.
- 4.4 Quality data also helps the Council comply with its obligations under the Data Protection Act 1998.

### Data Quality Principles

- 4.5 To assure the quality of data, the Council will adopt the following principles which will be supported procedures, guidance and training:

#### Data collection

- 4.5.1 **Accuracy:** Data must be accurate with clear procedural guidance for collecting, using and amending data.
- 4.5.2 **Timeliness:** Data should be collected as quickly as possible after the event or activity, and must be available quickly enough to support information/business needs and management decisions
- 4.5.3 **Relevance:** Data must be relevant to the purposes for which it is used, and must be reviewed on a regular basis to reflect changing needs, including changed service or legislative requirements.

#### Data management

- 4.5.4 **Reliability:** Data collection processes must be clearly defined and followed to ensure on-going stability and consistency over time. In particular, trend data must reflect real change rather than variations in data collections methods or approaches.

- 4.5.4 **Verification:** Data must be verified on a regular basis to ensure that there are no gaps, and that systems do not contain redundant or duplicate records. Verification approaches include:
- 4.5.4.1 Data cleansing to remove duplicate records or complete missing information
  - 4.5.4.2 Signing-off processes to verify that data has been checked
  - 4.5.4.3 Regular query reports to check system integrity
  - 4.5.4.4 Regular checks and sampling to quality assure data accuracy

#### Data presentation

- 4.5.5 **Validity:** Data needs to be presented in line with relevant requirements, rules and definitions to ensure clarity, consistency and comparability, in particular performance and open data.

### **Data Quality Objectives**

- 4.6 The council's corporate objectives for data quality define a framework of management arrangements which will assure partners and other stakeholders that the quality of our data is reliable and sustainable. The council's corporate data quality objectives, together with actions required to achieve them are to:

#### Appropriate Responsibility, Accountability and Awareness

- 4.6.1 Every member of staff will recognise the need for good quality data and how they can contribute to it
- 4.6.2 Every member of staff will be aware of their individual responsibilities with regard to data collection, storage, analysis and reporting
- 4.6.3 Every member of staff will be aware of the implications of poor data quality in their area in terms of internal and external accountability including those affecting other departments and the Council as a whole
- 4.6.4 Every member of staff will report any systematic data quality issues immediately to their manager who should ensure remedial action is taken
- 4.6.5 Every member of staff will be aware of the policies related to data quality on security and data protection

#### Appropriate Policies and Procedures

- 4.6.6 The Council will define clearly its key data requirements and assurance arrangements
- 4.6.7 procedures must exist for all key activities such as major data collection exercises and external returns
- 4.6.8 All such policies and procedures should be reviewed regularly to consider their impact on data quality and to ensure they reflect any change in need

- 4.6.9 Departmental managers will ensure that all such policies and procedures are adopted and embedded within working processes and that compliance is achieved

#### Appropriate Systems and Processes

- 4.6.10 Clear systems and business processes should exist in which data collection and reporting
- 4.6.11 Guidelines for all processes supporting key data requirements will exist and be followed consistently
- 4.6.12 Data should be collected and recorded once only wherever possible without the need for multiple systems
- 4.6.13 systems should have validation checking facilities to ensure data is complete, consistent and internally validated

#### Appropriate Security

- 4.6.14 The Council will have in place appropriate security arrangements to ensure that data is protected from unauthorised access from outside the institution
- 4.6.15 All Council systems will have security arrangements in place to ensure appropriate levels of access to data by individual staff and students

#### Appropriate Staff Development

- 4.6.16 All members of staff accessing, inputting and amending data on Council systems must have the appropriate knowledge, competencies and capacity to carry out the activity and preserve data quality
- 4.6.17 All policies procedures and guidelines will be communicated effectively to relevant staff, and this will include policies on security and data protection as part of the wider consideration of data quality

### **Reporting and Presentation of Data**

- 4.7 All management information reports will be clear in what they are representing, bearing in mind the audience for which they are intended, and regular reports should be reviewed to ensure that they reflect any change in need. The review should be balanced with the need for consistency over time so that trends can be recognised and reported.
- 4.8 External returns will be subject to rigorous validation and verification, submitted on a timely basis and will evidence a full audit trail, including appropriate approval and sign-off as specified by the body to whom the return is submitted, or agreed by the Information Council in the absence of such a recommendation.

### **New System Developments:**

- 4.9 The identification and consideration of data quality risks and requirements will be undertaken as integral part of system development projects, or programmes, and risk assessed, as appropriate, in conjunction with relevant stakeholders.

## **Implementation**

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- 5.1 The Information Council will approve and monitor an annual action plan for information governance development and compliance, including data quality. The plan will detail key tasks, outcomes, accountabilities and progress to ensure high standards of data quality, based on the principles listed above.
- 5.2 The Data Services Team, in conjunction with the Data Council, will lead the development of Quality Action Plans to implement the quality principles and objectives detailed in this policy.
- 5.3 The Data Council will be responsible for the implementation of the plan including data cleaning activities, process or system improvements, training and awareness sessions and the ongoing monitoring of quality reports and actions to remedy emerging issues.

## **Roles and responsibilities**

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- 6.1 The Information Governance Policy provides a detailed explanation concerning overall roles and responsibilities around information governance. This section provides a summary of those responsibilities, but also outlines specific responsibilities in relation to using, managing and improving the quality of the Council's data.

### **Council Leadership Team**

- 6.2 The Council Leadership Team has overall responsibility for information governance. This involves providing high-level support to ensure that each directorate applies relevant information governance policies and controls, including compliance with this policy. In particular, directors will be asked to nominate/ confirm information asset owners and data stewards.

### **Senior Information Risk Owner**

- 6.3 The Head of Strategy and Insight is the Council's Senior Information Risk Owner (SIRO). The SIRO has delegated authority through the Council Leadership Team with specific responsibility for information risk and mitigation, including risks around the quality of the Council's data. The Information Governance Manager is the Deputy Senior Information Risk Owner and deputises for the SIRO as required.

### **Information Council**

- 6.4 The Information Council (IC) has delegated responsibility, through the SIRO and the Council Leadership Team, for the development and delivery of effective information governance throughout the Council. In particular, the IC will provide

the necessary ownership and advocacy required to support, co-ordinate, promote, monitor and assure compliance with this policy

- 6.5 The Information Council will be responsible for the approval and on-going monitoring of the Quality Actions Plans.

### **Data Council**

- 6.6 The Data Council has delegated authority through the IC and supports the implementation of the information governance strategy particularly the Data Quality work stream. The Data Council is chaired by the Information Governance Manager. Key responsibilities include:

- 6.6.1 The development, implementation and review of Quality Action Plans including:

6.6.1.1 Data cleansing

6.6.1.2 Development of guidance and training on Data Quality

6.6.1.3 Implementation of process or system improvements to improve data quality

6.6.2 Monitoring Data Quality Reports and ensuring that actions are undertaken at a service level to remedy issues and avoid reoccurrence

6.6.3 Escalate persist Data Quality issues and action plans to the Information Council.

6.6.4 Production of regular progress report for the Information Council

### **Information Governance Unit**

- 6.7 The Information Governance Unit, in conjunction with the Data Services Team, will support the implementation of this policy as set out in the IC annual plan.

### **Data Services Team**

- 6.8 The Data Services team provide specialist data analytical resources and services including data profiling, modelling, visualisation, quality and advanced analytics for the Council.

- 6.9 Data Services will support implementation of this policy in partnership with the Information and Data Councils as follows:

6.9.1 Development of the Data Warehouse and Data Quality Toolsets

6.9.2 Lead the development of Quality Action Plans in association with the Data Council.

6.9.3 Produce regular systems data quality reports and provide support to the Data Council to identify and implement remedial actions and as required escalate risks through the Councils Risk Management Framework.

- 6.9.4 Produce a suite of Quality Performance Reports to monitor data quality and progress against the Quality Action Plans for the Data Council and Information Council.

### **Managers and supervisors**

6.10 All managers must:

- 6.10.1 Ensure that clearly documented systems and processes are in place to deliver high quality data
- 6.10.2 Ensure arrangements in place to quality assure data, and carry out on a regular basis
- 6.10.3 Ensure staff have the necessary skills and knowledge required to capture, process and deliver high quality data
- 6.10.4 Support the implementation of approved Quality Action plans and ongoing monitoring of data quality
- 6.10.5 Never knowingly use inaccurate or incomplete data for reporting purposes, and highlight any known risks or issues to the Information Asset Owner

6.11 As the Information Asset Register is developed and extended to identify and manage the Council's information assets, relevant managers will be designated as Information Asset Owners, including responsibilities for data quality

### **Staff**

6.12 All staff must:

- 6.12.1 Read, understand and follow this policy and any associated procedures that relate to the capture, use and management of Council data
- 6.12.2 Handle Council data in a way which is responsible and make every effort to ensure its accuracy, validity, reliability, timeliness, relevance and verifiability
- 6.12.3 Communicate any risks or concerns to line managers concerning the capture or use of data
- 6.12.4 Assist with the implementation of approved Quality Action Plans and actions to address emerging issues identified by the Data Council.
- 6.13 As part of their role and remit, individuals may also be nominated as Data Stewards (by Information Asset Owners) with operational responsibility for data quality issues.

### **Related documents**

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#### **Council Policy**

- 7.1 Data Quality Policy
- 7.2 ICT Acceptable Use Policy



- 7.3 Information Governance Policy
- 7.4 Information Rights Policy
- 7.5 Records Management Policy
- 7.6 Reuse of Public Sector Information Policy

### **Codes, Guidance, Procedures and Strategy**

- 7.7 Employee Code of Conduct
- 7.8 Open Data Strategy

### **Equalities impact**

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- 8.1 There are no equalities issues arising from this policy.

### **Sustainability impact**

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- 9.1 There are no sustainability issues arising from this policy.

### **Risk assessment**

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- 10.1 The risks of not implementing this policy include:
  - 10.1.1 Distress or harm to individuals or organisations.
  - 10.1.2 Reputational damage to the Council.
  - 10.1.3 Financial loss or monetary penalty imposed.
  - 10.1.4 Detrimental impact on Council business and service delivery.
  - 10.1.5 Non-compliance with legislation and potential litigation.

### **Review**

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- 11.1 This policy will be reviewed annually or more frequently if required by significant changes in legislation, regulation or business practice. It will be reviewed by the Information Council and presented to Council committee annually, in line with the Council's Policy Framework.