Local Government Data Maturity Assessment Tool: question overview

Introduction

This document provides an overview of the questions that are included in the Local Government Association's Local Government Data Maturity Assessment Tool. It is for information only - please visit the tool to complete your assessment and for more information.

Response scales

For each question, the following response options are provided:

- Strongly disagree
- Tend to disagree
- Neither agree nor disagree
- Tend to agree
- Strongly agree
- I don't know
- I don't understand the question

Questions

In the tool, respondents are asked to indicate the extent to which they agree or disagree with each of the statements listed below.

Culture and structure

This section describes the culture that organisations have in relation to data as well as the organisation's structural arrangements. By 'culture' we mean the shared underlying assumptions and guiding values that the organisation has which shape its use of data.

- **Evidence:** Evidence is used to make decisions and the organisation changes and adapts based on evidence.
- **Learning:** There's a culture of research and anticipation, and the organisation learns from its past mistakes.
- **Best practice:** The organisation does not seek out best practices and innovative approaches
- **Responsive:** Services are delivered in response to the identified needs of local people and there is a strong culture of incorporating ideas from practitioners.
- **Silos:** There is a limited amount of data capability that is fiercely protected by individual departments and there is no collaboration or flexible deployment of resources.
- **Collaborative:** Technical and service teams work closely together consistently, potentially in multi-disciplinary teams, and are supportive of each other's domains and expertise.

Leadership and strategy

This section describes the nature of leadership and strategy for organisations with different levels of data maturity. This includes how senior managers value data, the behaviours they exhibit and how strategy is developed in the organisation.

- **Senior managers:** Senior managers are actively involved in the development of a data strategy and the delivery of important data projects. They demonstrate an appropriate understanding of relevant data techniques.
- **Oversight:** There is no clear organisational leadership on data issues, including in terms of legal compliance roles.
- **Councillors:** Councillors make decisions informed by data, are interested in the organisation's use of data and are ambitious for further development.
- **Strategy:** There is no formal data strategy for the organisation and data is not given importance in internal or public strategy documents.
- **Scope:** Strategy about data recognises the full range of issues in terms of culture, leadership, the data lifecycle, skills and capabilities, systems and tools and governance and compliance.
- **Ecosystem:** There is an understanding of how the data stewarded by the organisation, partners and subcontractors can be used to support broader public benefit, and a recognition of the organisation's role in the broader public sector data ecosystem.

Data lifecycle

This section describes the organisation's practices throughout the data lifecycle, split into six subsections.

Plan and design

This section describes activities and behaviours of organisations in relation to data at the planning and design stage of projects.

- **Planning:** No planning of data projects is undertaken and data is often provided / collected reactively in response to requests for information.
- **Discovery:** Data that is already held by the organisation, and others, is identified. User research is always undertaken to understand the needs of the end users of the analysis or data products being developed.
- **Requirements:** User requirements are translated into data requirements and a clear specification is developed. Data architecture[1] and modelling activities are undertaken. Learning from previous projects has been incorporated into ways of working.
- **Standards:** All data products, projects and services are built for re-use and methods and approaches are documented and made available. The team has identified the data standards[2] which could be used in the project.
- **Accountability:** There are clear lines of accountability, risk assessments are undertaken and there is a cyber incident response plan where appropriate.
- **Stakeholders:** There is a process to identify others within the organisation who have an interest in the project, such as communications colleagues and senior managers.

Collect or acquire, and ingest

This section describes the organisational behaviours at the stage at which data is collected, acquired from elsewhere and ingested into business systems.

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[1] Data architecture activities set the vision for the organisation's use of data to support organisational objectives, and ensure steps are in place to achieve this.

[2] Data standards are widely agreed ways of formatting, defining, structuring, tagging, using and managing data to aid consistency and enable linking and sharing of data.

- **Access:** Teams can easily get access to data from third party suppliers and contracts require suppliers to ensure data schemas[3] are open and data is accessible. There are clear processes and approaches followed for the collection and ingestion of data which adhere to industry recognised design patterns and standards, where appropriate.
- **Knowledge:** There is detailed knowledge of data held by the organisation, as well as relevant data available externally eg through the LG Inform Plus Application Programming Interface (API).
- **Catalogues:** The organisation's data is catalogued, findable and has up-to-date supporting documentation (including metadata). There is a well-used central data catalogue, as well as good service specific catalogues, and there is comprehensive awareness of where data is stored and can be accessed.
- **Minimisation:** New data collections or acquisitions are only considered if they are identified as necessary. There is on-going work to reduce duplication of organisationally important data sets and to ensure data minimisation.

Prepare, store and maintain

This section describes how the organisation prepares, stores and maintains the data that it holds.

- **Quality:** The wider organisation can rely on getting access to trustworthy data easily and in a timely manner. There is a drive to continuously improve data quality and for updating data on a reliable schedule.
- **Integration:** Data can be easily integrated and is linked according to recognised approaches, standards and schema. Analyses are undertaken on frequently updated data extracts rather than live data from systems.

[3] Schemas define standard structures for data.

- **Understanding:** Specialists within the organisation understand data flows across the organisation's systems and processes and these relationships are mapped.
- **Skills:** There is no recognition of the need for specialist skills and resources to prepare data for use by others.

Use and process

This section describes all use and processing activities in the organisation including analysis and automated approaches.

- **Use:** Teams across the organisation use timely data to make day-to-day decisions and deliver outcomes based on insights. Teams and councillors get the insights they need through easy to use tools and appropriate analytical support.
- **Approaches:** As well as using descriptive, diagnostic and predictive analytics, the organisation has begun to think about identifying use cases for automated recommendations (for example identifying parking infringements or likelihood of receiving planning consent).
- **Data science:** Data science techniques and tools are not being used. Projects are delivered on an individual basis and there is no re-use of approaches.

Share and publish

This section describes the practices of an organisation at different levels of data maturity in relation to sharing data, internally and externally, as well as making data and insights available through publishing.

- **Sharing:** There is routine sharing of relevant data with other public sector partners, not only for statutory purposes, but to inform joined up strategic planning and the coordination of service delivery, for example sharing with local health organisations.

- **Open data:** Open data is published to the highest standard and the council has an open data portal or data observatory. This published data is made use of by internal teams and partners and recognised as the most up-to-date data.
- **Audiences:** Data and insights are made accessible to non-technical audiences such as residents and businesses, and products for these audiences are developed on the basis of user research and testing.

Archive and destroy

This section sets out the practices of organisations in terms of archiving data and destroying it where appropriate.

- **Policies:** There are no defined policies around archiving and destroying data that ensure data is handled according to regulatory and legal requirements.

Systems and tools

This section describes the systems and tools used by organisations at different levels of maturity.

- **Infrastructure:** The organisation has a scalable and flexible data infrastructure which supports all stages of the data lifecycle and encompasses the whole organisation. Data systems are joined up within the organisation and allow for the routine sharing of data with other organisations, for example through APIs. Data can be moved from one system to another with no vendor lock-in.
- **Collaboration:** Data owners and the IT department are not involved in the specification, design and implementation of data systems. Data scientists have no access to the tools that they need and there is no suite of tools to support deriving insights from data.

- **Procurement:** Data needs are not considered at the point of procurement of systems and data standards are not taken into consideration, making it difficult for data to be accessed.
- **Security:** Data is securely stored and backed up regularly, and there is a system in place to ensure the accuracy and reliability of data.

Skills and capability

This section describes the characteristics, practices and behaviours that relate to issues of skills and capability at different levels of maturity.

- **Staffing:** The organisation has highly data-literate staff and has access to the appropriate level of skills. The organisation has in-house data specialist roles such as data architects and data engineers. The organisation has documented promotion pathways, and recruitment and retention plans for technical and non-technical data staff.
- **Skills needs:** There is no understanding of the types of data skills needed in the organisation and there has been no assessment of the current organisational capability.
- **Training:** There is a comprehensive staff training and development scheme for all staff to build their data literacy, including for councillors. There are training policies to keep analytical and data staff up-to-date with evolving tools and techniques.

Governance and compliance

This section describes the characteristics of organisational data maturity in terms of data and information governance, compliance with privacy legislation and other statutory requirements, as well as cyber security considerations.

- **Compliance:** The organisation is compliant in relation to all of its statutory data governance responsibilities (such as GDPR) and this is continuously monitored. Data is held securely and safely. There is a culture of

anticipation and mitigation in terms of risks and cyber security issues. Where there are breaches there is a no-blame approach and the organisation seeks to learn from any mistakes and vulnerabilities.

- **Governance:** There are no formal data and information governance groups nor any clear policy or guidance.
- **Engagement:** The organisation has mature arrangements for engaging members of the public and businesses about its use of their data, for example, through public participation in development of a data charter.
- **Privacy:** There is no consideration about privacy in the development of data products and services. There have been recent data breaches or there is a perceived risk of data breaches.
- **Ethics:** Data ethics is considered routinely in project development and data sharing, and there is clear guidance on how to do so based on recognised approaches. When the organisation employs automated approaches and machine learning, an assessment is performed in accordance with the Algorithmic Transparency Recording Standard[4]. These considerations are extended comprehensively to third party suppliers.

[4] The Algorithmic Transparency Recording Standard helps public sector organisations provide clear information about the algorithmic tools they use, and why they're using them.

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