# Agenda Item 6

# **Local Government Data Platform**

# **Phase 1 Report**

# **March 2023**

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# Key Findings and Recommendations

## Key Findings

1. The current reporting regime reveals a lack of focus on outcome improvement. The New Deal for Local Government allows us to think differently about how we can work together to make better use of data to drive the desired improvement in outcomes.
2. The volume of reporting that Councils are required to provide is growing at an accelerated rate, driven in part by the increasing proportion of Local Government funding which is ringfenced or provided with the expectation it will be spent on specific services. The scale of reporting, alongside a lack of co-ordination and lack of automation in the return process creates a significant burden for Local Authorities. The volume is undermining our confidence in the quality of data returned, and also our ability to derive useful insights and use the available data effectively to inform evidence-based decision making. An ever-greater local government resource is required to service reporting commitments, leaving less capacity to focus on what is important locally, and to undertake the value-added work of analysis, interpretation and use. In addition, the cost of producing this volume of data is unnecessarily high and will only keep growing. The increasing proportion of ringfencing and associated reporting is reducing the flexibility Local Government has to make decisions and use resources flexibly to deliver on outcomes for people in their communities.
3. There is a lack of oversight or awareness of what data is being collected, or where there may be duplication, or opportunities for better alignment or linking of datasets. There is a lack of clarity and transparency in relation to the purpose and use of much of the data collected. Beyond the publication of statistics, it is not clear how the information is used at a national level for policy development or funding decisions. There is also insufficient evidence of how the data is being used at a local and/or national level to drive improvement in outcomes or support a greater focus on prevention. The data which is requested by national bodies is often not perceived to be useful for local authorities in relation to improving outcomes, with relevance, quality and timeliness issues continuing to undermine the value and use of data reported.
4. There is an over-reliance on data collection approaches which do not support automated collection or validation of data, creating resource implications for both Local Government and Scottish Government, and also significant time lags in publication.
5. Councils systems and processes used to return data are often poorly orchestrated and co-ordinated, adding to the resource burden and undermining their ability to derive maximum value from available data. Configuration of Council data management systems does not currently support ‘one button’ reporting, and leads to the creation of complex, often manual and resource intensive processes to transform and prepare data for reporting. Data quality and completeness issues within LA systems result in significant resource being focussed on validation and checking of data. Data architecture does not facilitate efficient data flow, data sharing, data linkage, data analytics and data access to maximise value and use. Councils are engaging with data transformation and data maturity agendas, but cite challenges in relation to internal capacity, skills, capability, leadership and workforce buy-in.

## Recommendations

1. Local Government and Scottish Government should use the New Deal for Local Government and underpinning partnership agreement to ensure a focus on reporting which is essential to evidence improvement in outcomes in partnership, ensuring that we take account of existing data reporting and consider streamlining and reducing where possible.
2. Specifically, against this current context, Local Government and Scottish Government should work together to:

* Build trust around delivery, and a focus on only the data that is required to evidence outcome improvement.
* Develop a protocol and governance mechanism to agree and implement any future reporting that is required, within a new assurance and accountability framework (part of the Partnership Agreement).
* Reduce the overall volume of data reporting, focussing on policy relevance and impact on improving outcomes, and identifying areas of duplication.
* Operationalise the high-level principles developed to support reviews of relevance and usefulness of current and future data reporting.
* Promote and ensure greater use and re-use of collected data in driving improvement in outcomes
* Utilise the Calendar of Returns to improve planning and co-ordination of existing reporting.
* Develop and operationalise ongoing hosting and updating arrangements for the List of Data Returns, including the development of an online register of data returns.
* Review the extent to which the Crerar recommendations have been implemented and ensure that issues in relation to the collection and reporting of data are fully linked into the evolving scrutiny landscape.

1. The IS, COSLA & Digital Office should work with Scottish Government to seek opportunities for improvements in national co-ordination, orchestration, standardisation, and (where applicable) automation to reduce burden.
2. The IS, COSLA & Digital Office should work with Councils to prioritise local improvements in data quality and data standards.

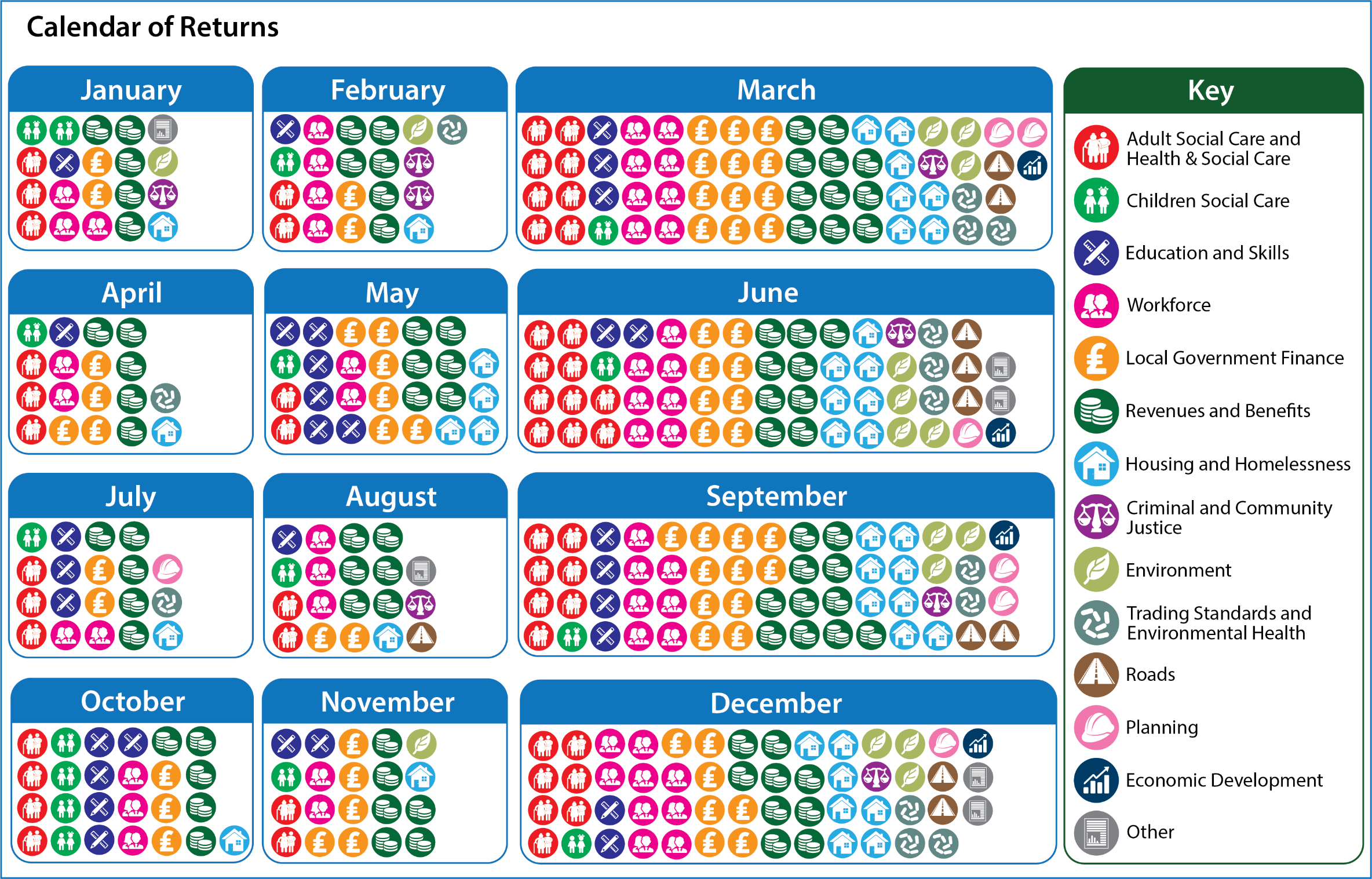
## Next Steps - Phase 2

Set against the context of the New Deal and Partnership agreement, Phase 2 of the Local Government Data Platform project will focus on simplification and streamlining of the reporting landscape, as well as delivering improved co-ordination of the data collection that continues to be necessary for assurance purposes, reducing the effort for manual data collection and improving the re-use of data collected.

This phase will take forward the recommendations emerging in Phase 1 in the following workstreams:

1. Improving Governance and delivering reductions in the reporting landscape, including establishing a formal (and definitive) online register of data returns.
2. Improving data standards to enhance the quality and reuse of provision of data returns.
3. Improved orchestration of data returns using scheduled workflows to initiate data returns and track progress of completion, running a proof-of-concept with selected returns.
4. Automation of data collection and distribution, running a proof-of-concept with selected returns to establish capacity and ability to provide and support further automation.





Download full detail [here](https://www.improvementservice.org.uk/__data/assets/excel_doc/0020/42464/Calendar-of-Data-Returns-Final.xlsx)

# Introduction

This draft report presents key findings from Phase 1 of the Local Government Data Platform project. This discovery phase aims to better understand the complexity in the current reporting landscape in order to improve governance in the lifecycle of Local Government data returns and to identify opportunities for streamlining reporting requirements and processes. The recommendations set out in this report form the basis for Phase 2 of the development of the LG Data Platform as set out in the [Roadmap](https://www.improvementservice.org.uk/__data/assets/word_doc/0018/42462/Strategic-Case-Local-Government-Data-Platform-March-2022.docx).

## Background

The Local Government Data Platform represents an ambitious transformation programme to deliver improvements in the way Local Government manages and uses data. This ground-breaking initiative represents a collaboration between the Improvement Service, COSLA, Solace, the Digital Office for Scottish Local Government, Public Health Scotland and Scottish Government.

Our response to the pandemic underlined the critical role of data and intelligence within public services, highlighting the importance of timely, relevant and good quality intelligence for decision-making. This has in turn enabled rapid progress around data sharing, data collaboration and data innovation across the sector. The Local Government Data Platform represents an opportunity to build on these gains and ensure longer term transformation in the data landscape. As the public sector responds to the ongoing impacts of the pandemic and emerging pressures arising from the cost of living crisis, data and intelligence will be more important than ever in helping Local Government respond to changing patterns in need and vulnerability, to learn lessons from its response, and to grasp some of the positive opportunities emerging from this period.

Councils in Scotland have long held the aspiration to have greater control over how information is requested, submitted, and ultimately, shared; through a system designed for data returns, across all of our services, with real time access for authorities to update their information and to assist with decision making across all spheres of government. The current arrangements for providing data returns to external agencies present a number of challenges to Local Government in terms of volume, frequency and lack of co-ordination of reporting requirements. The COVID-19 emergency has exacerbated existing challenges, particularly operational impacts associated with providing reports manually, and has shone a spotlight on improvements that could be made.

The Local Government Data Platform aims to improve and streamline the management of data returns and to provide enhanced value from the process by providing greater insight and intelligence to Local Government itself. The Platform will also provide improved data quality, improved timeliness of data, and greater assurance for stakeholders such as Scottish Government.

This commitment supports recommendations set out in the “Crerar Review: the report of the independent review of regulation, audit, inspection and complaints handling of public services in Scotland”[[1]](#footnote-1). The Crerar Review placed primary responsibility for demonstrating compliance and performance with the service provider, clearly stating that it is the responsibility of Local Government/individual local authorities to develop robust performance management and outcome focused self-assessment.

Given the scale and ambition behind this programme, delivery of the Data Platform will adopt a phased approach. Each phase of the roadmap is designed to be standalone and will enable tangible benefits to be delivered on an incremental basis. COSLA Leaders and Solace provided support in March 2022 for the vision and purpose set out in this approach.

Phase 1 – Improved Governance. This aims to deliver improved control of the lifecycle of LG returns

Phase 2 – Improved Co-ordination. This aims to reduce the effort for manual data collection and improve the re-use of data collected

Phase 3 – Increased Timeliness, Scale and Sophistication. This aims to scale up automation and integration and introduce enhanced data analytics and data visualisations.

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| What is the Local Government Data Platform? The Local Government Data Platform will help to drive the much-needed transformation in the current data reporting landscape, delivering the following benefits for Local Government:   * Improving the governance arrangements for managing the lifecycle of data returns * Reducing the effort required to collate and provide data within councils * Improving the coordination of data collection across Local Government to reduce the impact on service delivery teams * Improving the timeliness and quality of data collected to increase the value of the data for Local Government, and improve trust in Local Government data and decision-making * Providing richer insight from the data collected for Local Government and individual councils * Delivering efficiency savings through greater automation and use of shared systems   The Local Government Data Platform will support the following three main functions:   * Collection and exchange of data * Validation and enhancement of data * Visualisation and presentation of data   The high-level design of the Data Platform is set out below:   * The long-term ambition would be that required returns would be automated so that selected data is directly exported from councils’ various back-office systems without additional manual handling. Current data recipients, such as Scottish Government Directorates or the Care Inspectorate, could be given permissions to access the submitted data reports relevant to them from each authority through a Local Government data platform. This would remove the need to submit directly. * Ultimately, the system would enable local authorities to customise their own dashboards by selecting, for example, which information they wish to collate together, to aid decision making. The platform would be focussed on the datasets collated by Local Government but could draw in additional datasets as required, subject to agreement across all authorities. * A formalised protocol would be put in place to handle any new data requests before they were added to the platform. This would require a clarity on the purpose of collection, discussion on the regularity, duration, etc and, very importantly, agreement on the wording and guidance for individual indicators. Additionally, the platform would also focus on ensuring that existing returns are still useful and relevant. |

## Phase 1 approach

Phase 1 aims to identify recommendations to improve governance to manage the lifecycle of Local Government data returns. This discovery phase is essential in addressing the complexity in the current data landscape and in identifying opportunities for streamlining and improvement in current systems and application across Scottish Local Government. Governance for this phase was provided by an oversight group who advised on the overall strategic direction and delivery of Phase 1. The group was jointly chaired by Solace and COSLA, and drew membership from the Improvement Service, Local Government Digital Office, Public Health Scotland, and Scottish Government. The LGBF Board provided an advisory role.

There were three workstreams in this phase, including:

1. Mapping of Data Reporting Requirements: - A comprehensive mapping of current data returns, produced with assistance from Scottish Government, Public Health Scotland, COSLA and Local Government colleagues
2. Analysis of current data flow and systems: - A mapping analysis of the processes, systems and resourcing involved in servicing data returns, and how data is being used both locally and nationally.
3. Stakeholder Engagement: - Workshops, focus groups and online engagement with colleagues from Local Government, Scottish Government, professional associations and a range of other organisations and forums to prioritise where improvement activity should be focussed within the reporting landscape and the governance arrangements required to support this.

The findings and recommendations emerging from this activity are set out under the following sections:

* Strengthening Governance Arrangements
* Improving the end to end data flow process
* Implications for a Data Platform solution

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# Strengthening governance arrangements to support reviews of relevance and usefulness of current reporting

Phase 1 of this project undertook a comprehensive mapping of the current data reporting landscape for Local Government. This reveals a clear picture of the current reporting Councils are required to produce for external stakeholders. The mapping will be pivotal in helping assess the policy relevance of the data currently collected, and to inform where there is duplication and where there may be opportunities to work together to streamline and reduce existing collections. It will also provide a valuable resource to promote greater use and re-use of the data that is currently collected.

## Characteristics of the current data reporting landscape

**Volume of reporting**

* Local Government is currently required to provide more than 160 different data returns, and is subject to more than 30 further public reporting duties which require data publication.
* There has been an acceleration of returns introduced in recent years, with 30 returns introduced in the last 2 years. This increasing trend is true even when adjusting for Covid related returns. This increase has been driven by the introduction of new Social Care data collections (8 new returns) which has particular relevance in the context of the development of a National Care Service.
* In total, LAs are required to service more than 430 data collections every year, with over 24,000 data items per Local Authority. This increases to over 3 million data items per authority, when reflecting that some collections require individual level data and involve many thousands of returns.
* In addition to planned data returns, every council is also required to provide responses to over 1000 Freedom of Information requests (FOI), Environmental Information Regulations requests (EIR), and Subject Access Requests (SAR) on average annually.

**Requiring Bodies**

* Data returns are required by 37 different organisations, with half of all returns required by Scottish Government (88/169).
* Given the scale of reporting and volume of requiring bodies, it is unsurprising that there is a lack of awareness among key stakeholders of what data is being collected, and by whom.
* Timing of returns is a significant challenge for authorities and creates difficulties for planning and co-ordination at both national and local levels. There are collection bottlenecks at certain points of the year, with over 60 returns due in some months. In March, there are over 30 returns due on Finance, Revenue, Benefits and Workforce alone.
* Recently introduced data collections tend be more frequent (quarterly or more frequent). Since 2020, two thirds of the returns introduced were quarterly or more frequent (fortnightly, weekly or daily). While this leads to more timely data, it is important to note that this also creates a greater burden for authorities. More frequent returns tend to be focussed on monitoring activity or funding streams, rather than official statistics.

**Methodology**

* Data collections continue to rely primarily on an MS Excel spreadsheet attached to an email.
* While there has been an increase in alternative data collection methods in recent years, such as using online portals and online forms, these remain the minority.

**Focus of Returns**

* Social Care, Education, LG Finance and LG Workforce are the main areas of reporting for authorities (accounting for 58% of all returns).
* There is a significant focus within current data collections on policy priorities such as Children’s Wellbeing, Financial Security for Low Income Households and Economic Recovery, however less so on Climate Change.
* A more detailed mapping is needed to understand the relevance and utility of data included within these collections, where the gaps are, and how helpful the data collected is in driving forward improvement, policy development and funding decisions locally and nationally.

**Purpose and Use**

* The volume of requests is undermining our ability to ensure quality, and to maximise our use of and derive insight from the data
* There is a lack of clarity and transparency in relation to the purpose and use of much of the data collected. Beyond the publication of statistics, it is not clear how the information is used at a national level for policy development or funding decisions.
* There is insufficient evidence of how the data is being used at a local and/or national level to drive improvement in outcomes or support a greater focus on prevention. While there has been some progress in linking datasets to allow a stronger focus on outcomes, this approach is not yet well established with data sharing challenges continuing to undermine progress. There remains little progress on how data is used to target early intervention before people become vulnerable, and how we use predictive analytics alongside risk factor data to provide a forward look at what is needed and how.
* Not all statutory returns include data which is perceived useful for local authorities, and even where the data is routinely produced by authorities as part of service delivery, the additional transformation required to service the return for an external body is a significant burden.
* Data quality concerns over the robustness, consistency and continuity of the data frequently undermine the utility and value of data that is collected.

**Publication**

* Not all data that is collected is published, with over 15% of collections not currently published. Where data is published, the lag time between data being returned and it being published continues to undermine its value.
* Data is often published with insufficient context to be useful, not least in terms of understanding local variation. Greater sophistication in interpretation of data is required to avoid the spectre of overly simplistic and unhelpful league tables.

Our analysis of current data reporting activity reveals the scale of the reporting burden currently facing Local Government and exposes a landscape which is data rich, but insight poor. The sheer volume of current data requests is undermining both our confidence in the quality of data returned, and also our ability to derive useful insights and use the available data effectively to inform evidence-based decision making. An ever-greater capacity is required to service these commitments, leaving less resource to undertake the value-added work of analysis, interpretation and use. In addition, the cost of producing this volume of data is unnecessarily high and will only keep growing.

## Improving Governance

To ensure more effective use of data and improve our ability to generate useful insights, a collective commitment is needed to reduce current reporting activity and keep only the data that is relevant and useful. A governance mechanism is required to support Local Government and Scottish Government to work together, and with other sector partners, to develop a shared understanding and ambition in relation to the following:

1. Why do we need the data in first place?
2. What data should be reported (referencing political, capacity and resources elements)?
3. What is the data quality?
4. What level of data needs to be reported, i.e. detailed or light touch?
5. How are we reporting it and what technology is being used?
6. How is it being analysed?
7. What use is being made of it (nationally and locally)?

To assist with this, this project has produced the following outputs:

* [A mapping of all current data reporting activity](https://www.improvementservice.org.uk/__data/assets/excel_doc/0019/42463/LG-Data-Platform-Mapping-Of-Data-Reporting-Landscape.xlsx) to support consideration of where reductions might be targeted, and to promote greater use/re-use of data which is collected.
* [A set of high-level principles](https://www.improvementservice.org.uk/__data/assets/word_doc/0021/42465/High-Level-principles-to-support-review.docx) to support reviews of relevance and usefulness of current and future reporting.
* [A calendar of data returns](https://www.improvementservice.org.uk/__data/assets/excel_doc/0020/42464/Calendar-of-Data-Returns-Final.xlsx) to improve planning and co-ordination of future reporting activity.
* [A mapping of data networks and initiatives](https://www.improvementservice.org.uk/__data/assets/pdf_file/0024/42468/D-and-I-Networks-Boards-and-Initiatives-v1.pdf) which could inform, and be informed by, this work.

## Recommendations

Local Government and Scottish Government should use the new deal for Local Government and underpinning partnership agreement to ensure a focus on that which is essential to evidence improvement in outcomes in partnership, ensuring that we take account of existing data reporting and consider streamlining and reducing where possible.

Specifically, against this current context, Local Government and Scottish Government should work together to:

1. Build trust around delivery, and a focus on only the data that is required to evidence outcome improvement.
2. Develop a protocol and governance mechanism to agree and implement any future reporting that is required, within a new assurance and accountability framework (part of the Partnership Agreement).
3. Reduce the overall volume of data reporting, focussing on policy relevance and impact on improving outcomes, and identifying areas of duplication
4. Operationalise the high-level principles developed to support reviews of relevance and usefulness of current and future data reporting
5. Promote and ensure greater use and re-use of collected data in driving improvement in outcomes
6. Utilise the Calendar of Returns to improve planning and co-ordination of existing reporting
7. Develop and operationalise ongoing hosting and updating arrangements for the List of Data Returns, including the development of an online register of data returns.
8. Review the extent to which the Crerar recommendations have been implemented and ensure that issues in relation to the collection and reporting of data are fully linked into the evolving scrutiny landscape

# Improving the end-to-end data flow process in the management of data returns

For that data which is essential to evidence improvement in outcomes or that data which continues to be necessary for assurance purposes, improvements are required in the end-to-end data reporting process to deliver efficiencies, improved data quality, and greater data use.

To better understand the current data flow process and to identify priorities for improvement, we completed a mapping analysis of the processes, systems and resourcing involved in servicing data returns at present and examined how data is being used both locally and nationally. The annual Children Looked After return to Scottish Government provided a valuable use-case for this analysis with this return selected due to policy relevance and existing burden. The findings generated from this analysis are set out in ‘[as-is and to-be data flow processes](https://www.improvementservice.org.uk/__data/assets/file/0020/42473/As-Is-and-To-Be-Data-Flow.zip)’, and an ‘[ideal data flow process’](https://www.improvementservice.org.uk/__data/assets/image/0022/42466/LG-Data-Platform-Process-Mapping-IDEAL-To-be-Process.jpg), and are considered common across other returns.

## Challenges in the current end-to-end process

The key challenges identified in the current end-to-end process are summarised as follows:

* A lack of co-ordination in the data reporting asks of Local Government, in terms of timing, content and purpose
* An over-reliance on data collection approaches which do not support automated collection or validation of data, creating resource implications for both Local Government and Scottish Government, and also significant time lags in publication
* Data quality and completeness issues within LA systems resulting in significant resource being focussed on validation and checking of data before submission
* Configuration of current LA data management systems which does not support ‘one button’ reporting, leading to the creation of complex, often manual and resource intensive processes to prepare data for reporting
* Data architecture which does not support councils to maximise use of their own data asset, with progress needed to improve data flow, data sharing, data linkage, data analytics and data access to derive greater value from available data
* Limited internal capacity, skills, capability, leadership and workforce buy-in required to drive forward the data transformation agenda.

## Priority areas for improvement – Local Government

We have identified a number of priorities for improvement which local authorities might wish to consider in relation to improving the end to end data flow process.

**Improving data quality**

* Greater investment in data standards to create better data and more accessible data, and to allow data from different sources to be integrated, thus improving re-use.
* Build in data validation checks at point of data entry.
* Implement an ongoing schedule of maintenance, rather than a one-off data explore.
* Make greater use of ProcXed where available to validate raw extracted data.
* Engage with Scottish Government’s/requesting bodies’ user groups, to inform the development of data collections and address data quality issues.

**System Flexibility to support greater automation**

* Greater investment in system configuration to support automation in relation to data reporting.
* Address skills ‘gaps’ in relation to the management, configuration and data extraction from systems used.
* Consider what can be learned in relation to functionality and efficiencies offered via customised management information systems.
* Make greater use of support and maintenance available from system providers.
* Utilise/develop user groups around software system developers, to promote good practice sharing across Local Authorities.

**Data Flow Architecture**

* Work towards system integration and development of local data repositories which support greater linkage of datasets and generate richer insight in relation to outcomes.

**Capacity, Capability & Culture**

* Consider undertaking a Data Maturity Assessment (such as that supported by Scottish Government’s Data Maturity and Pathways project) to help target improvement priorities and promote a data-driven culture.

## Priority areas for improvement – Scottish Government

The following are areas of improvement prioritised by Scottish Government colleagues in workshop discussions.

**Co-ordination & Standardisation**

* Greater co-ordination across SG directorates in relation to focus, methodology, timing and communication around data returns.
* Develop in agreement with LG a more standardised approach to receiving, processing and publishing data return information.
* Develop User Groups for each data return to strengthen engagement and co-ordination with LA colleagues
* Use the United Nations Economic Commission for Europe (UNECE) Generic Statistical Business Process Model (GSBPM) work to continue to develop data specifications, guidance and standards to improve consistency across returns.
* Be more prescriptive about internal SG processes around data so that pipelines can be built that free up time and create consistency.

**Automation**

* Embrace new technologies that support effective and automated validation of data and deliver significant process efficiencies and improved data quality by moving to a more widespread use of online portals.
* Explore options for establishing a common platform approach (e.g., SEEMIS, Microsoft 365, ProcXed and Dog Control Notice- DCN) to deliver greater automation.
* Make greater use of XML rather than spreadsheets.

**Data Use**

* Give greater emphasis to clarifying the purpose and range of uses for data collected.
* Showcase good practice in relation to progress in linkages between existing returns.
* Greater sharing of the final output of the data return information to promote understanding of what the data is used for.
* Improve accessibility of data, e.g. via a central repository and having it published in an open way, including through use of tools such as APIs.
* Publish data in a timelier manner following receipt of data from Councils.

## Recommendations

It is recommended that:

1. COSLA, the IS, and Local Government Digital Office should work with Scottish Government to implement improvements in co-ordination, standardisation, automation and data use. This should be supported under the governance framework provided in the new deal for Local Government and underpinning partnership agreement to oversee how work is taken forward and to address any issues that arise.
2. The IS, COSLA and Local Government Digital Office should work with Councils to prioritise local improvements in data quality and data standards.

# Implications for development of a LG Data Platform

The learning from Phase 1 of this project provides a clearer picture of what is needed in terms of a future technical solution for the effective management of data returns. The table below sets out the key characteristics a LG Data Platform solution should include based on findings from the Discovery Phase.

It is worth highlighting, that while such a solution will address a number of key areas for improvement including data automation, data quality, data use and re-use, data linkages, and data standards, it is clear from the evidence that the implementation of a solution will need to be supported by work in parallel on data culture, data skills and data maturity. Consideration on this will be required during Phases 2 and 3 of the LG Data Platform project.

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| Key Characteristics of a LG Data Platform solution To support better management of data across the public sector, any solution must include three main elements (Collect & Distribute, Analyse, and Visualise) and one critical supporting strand (Governance & Data Standards). All three elements could co-exist in a single solution, however, given the number of existing data management solutions that are currently available it would be more likely that they are provided as separate solutions in a data ecosystem e.g ProcXed, DeXam. Collect & distribute  * 1. A framework for storing, reading and analysing streaming data, which incorporates both push/pull functionality, and is able to publish and subscribe.   2. A system which supports automated collection and distribution of data requires a data platform which can integrate with anything and everything. A data collection managed service should be agnostic to the data management services that run locally. It would be capable of collecting and distributing data in multiple formats and delivery methods.   3. The platform should therefore support collection and distribution of data in numerous formats and delivery methods, including: * API to directly extract data from systems. This is less common and requires skilled staff to configure and maintain and can incur cost from the supplier of the system hosting the data. * File extract from systems into XML or CSV. Frequently distributed via email although some portal uploads are available (ProcXed). * A portal to directly input the data into the system and then distribute to relevant parties, managed through a workflow that can orchestrate the manual data collection and be used to track progress of data returns. * Microsoft Excel spreadsheet. Usually treated the same as a file extract.   1. The platform should facilitate automated data validation at the collection stage to ensure that it is correctly formatted, complete and valid. It should use the most powerful data tools available and utilise scripts to perform data validation.   2. A centralised service for providing configuration information, naming, synchronization and grouping services over large clusters in distributed systems. The goal is to make these systems easier to manage with improved, more reliable propagation of changes.   3. The collection, analysis and distribution of data would be best delivered through centralised managed service offerings. This would provide economy of scale, easier implementation of data standards, reusable integrations, a simplified governance model, consolidation of skills and resources and a single pathway to develop data integration requirements with suppliers.   4. The development of common platforms to provide this type of service could be explored via the Common Platforms proposal from the Digital Assurance Board to the Logal Government Digital Partnership Board.  Analyse  1. The platform should include tools to analyse and enhance data which can be configured to do a number of tasks including validation of data, matching and linking across datasets and disaggregation and merging of datasets (to create supersets of similar or complimentary data collections). 2. A data processing framework that can quickly perform processing tasks on very large datasets and can also distribute data processing tasks across multiple computers.  Visualise  1. The platform should facilitate use of Business Intellegence tools which provide data exploration, visualization, sharing and collaboration features to deliver targeted reporting. 2. While visualisation tools and dashboards could be offered though a managed service, processed data could also be distributed to users who could use locally deployed Business Intelligence tools to produce reports. 3. It should support programming languages widely used across the Public sector (e.g. Python; R)  Governance and data standards  1. The governance of data and the agreements of data standards are critical to the successful delivery of any data management function. 2. The Local Government Digital Assurance Board is developing a proposal for the formation of a Digital Standards Board, co-chaired by the Digital Office for Scottish Local Government and the IS, and it would seem sensible to tie in with that as it progresses. |

# Next Steps – Phase 2

As set out in the roadmap, Phase 2 of the Local Government Data Platform project will focus on delivering improved co-ordination of data collection, reducing the effort for manual data collection and improving the re-use of data collected. This phase will build on the findings in Phase 1, and take forward the recommendations set out from this phase, including delivering reductions in the reporting landscape.

There will be 3 main workstreams during Phase 2:

1. Improving Governance and delivering reductions in the reporting landscape
2. Improving data standards
3. Orchestration and automation of data collection and distribution

## Improving Governance & delivering reductions in the reporting landscape

Set against the context of the New Deal and Partnership agreement, we will work together to ensure a focus on that reporting which is essential to evidence improvement in outcomes in partnership, ensuring that we take account of existing data reporting and consider streamlining and reducing where possible. The following commitments in the Resource Spending Review will provide a framework for prioritisation of this activity.

* Tackling poverty, particularly Child Poverty
* Transforming our economy to deliver net zero
* Sustainable person-centred public services

We will work together to:

* Build trust around delivery, and a focus on only the data that is required to evidence outcome improvement.
* Develop a protocol and governance mechanism to agree and implement any future reporting that is required, within a new assurance and accountability framework (part of the Partnership Agreement).
* Reduce the overall volume of data reporting, identifying areas of minimal policy relevance or impact on improving outcomes, along with areas of duplication.
* Operationalise the high-level principles developed to support reviews of relevance and usefulness of current and future data reporting.
* Promote and ensure greater use and re-use of collected data in driving improvement in outcomes.
* Utilise the Calendar of Returns to improve planning and co-ordination of existing reporting.
* Develop and operationalise ongoing hosting and updating arrangements for the List of Data Returns, including the development of an online register of data returns.
* Establish the role of regulatory bodies, to ensure alignment with developments in the audit and scrutiny landscape.
* Review the extent to which the Crerar recommendations have been implemented.

## Data Standards

To lay the essential foundations for the LG Data Platform, we will continue to drive forward data standardisation to improve the orchestration and co-ordination of the provision of data returns. The Digital Office and IS are committed to implementing a Data Standards Board (DSB). The DSB will work across Scottish local government and the wider public sector to identify and curate existing data standards, while supporting the development of new standards that are deemed a requirement. It is hoped that the DSB will become a focal point for the development of data standards within the public sector.

Data standards can include:

* Data formats and structures
* Metadata
* Procedures for collecting and distributing data
* Data cleansing
* Data enhancement
* Data sources
* Data sharing requirements

During Phase 2, we will identify returns where data standards have margin for improvement and will use the developing Data Standards Board to support the promotion and development of data standards.

## Orchestration and Automation of data collection and distribution

To support progress against the longer-term ambition of fully automated data flow, we will develop two proof of concepts using selected returns.

One Proof of Concept will explore how the coordination of manual data returns can be improved using workflows that can orchestrate data collection with users, and track progress of data returns. The other Proof of Concept will explore how data can be collected in an automated manner, removing the need for manual effort.

There are a number of existing solutions that collect, enhance and distribute data. They have mainly been developed to support a specific requirement:

1. The OneScotland Gazetteer (OSG) is the benchmark for data collection, enhancement and distribution. It is supported by a British Standard (BS7666) and has evolved over many decades to include highly automated and frequent data collection, mature data enhancement and functionally aligned distribution of data. However, the OSG is specialised and optimised for handling address and street data and cannot be easily reused for other data.
2. Spatial Hub is similar in concept and implementation to the OSG. It is optimised to manage spatial data.
3. ProcXed - is a software platform developed by the Scottish Government. It allows for the validation and submission of statistical data to the Scottish Government.
4. DeXam – This is a managed platform delivered through the IS and TCS partnership. It is framework of data management tools hosted on Amazon Web Services and provided as a managed service. It currently supports two functional solutions:
   1. [Dog Control Notice database](https://www.improvementservice.org.uk/products-and-services/digital-public-services/dcn.scot-the-scottish-dog-control-database)
   2. Data Pipeline – This is used by Scottish Government to transfer data securely from HMRC & DWP to the 32 Scottish councils.
5. Microsoft 365 – which is used by the majority of Councils for office productivity, and email but also includes under-used advanced capabilities to automate processes and manage data.

During Phase 2, we will initiate a short life working group to select potential returns where collection and/or distribution could potentially be improved and to evaluate technical options with the Local Government Digital Assurance Board.

## Resourcing & Timescales

The Improvement Service is funding a Project Manager to oversee the delivery of Phase 2 of this project, which is scheduled to last for six months, running from May to October 2023.  The Project Manager oversaw the delivery of Phase 1 and the knowledge he has gained during this will be critical for the successful delivery of Phase 2.  As with Phase 1,  Phase 2 will continue to be a collaborative endeavour and it will be critical that the IS Project Manager can draw upon the expertise, skills and capacity within the Digital Office for Scottish Local Government,  Public Health Scotland, COSLA and local authorities themselves.

## Governance/Reporting

The existing Oversight Group will advise on overall strategic direction and delivery of Phase 2. This group is jointly chaired by Solace and COSLA, and draws membership from the IS, Local Government Digital Office, Public Health Scotland and Scottish Government. The LGBF Board will continue to provide an advisory role for this work. Upon completion of Phase 2, a report outlining the progress achieved, along with recommendations for future phases of this project will be shared with Solace and COSLA. This will provide an opportunity to ‘take stock’ in relation to wider progress, and to secure wider system commitment and appropriate resource contributions for future phases.

1. <https://www.gov.scot/publications/crerar-review-report-independent-review-regulation-audit-inspection-complaints-handling/pages/10/> [↑](#footnote-ref-1)