

Meeting of:	Cabinet
Date of Meeting:	Thursday, 06 June 2024
Relevant Scrutiny Committee:	Corporate Performance and Resources
Report Title:	Vale of Glamorgan Data Strategy
Purpose of Report:	To provide Cabinet with an update on the development of the Council's Data Strategy and seek approval of the Strategy.
Report Owner:	Report of the Executive Leader and Cabinet Member for Performance and Resources
Responsible Officer:	Tom Bowring, Director of Corporate Resources
Elected Member and Officer Consultation:	Consultation with staff is described within the body of the report.
Policy Framework:	This is a matter for Executive decision by Cabinet.
<p>Executive Summary:</p> <ul style="list-style-type: none"> • In November 2023 Cabinet approved the Digital Strategy 2023-2028. Within the Digital Strategy was a commitment to develop a Data Strategy for the Council. The Corporate Performance and Resources Scrutiny Committee were consulted as part of the consultation process for the Strategy. • In collaboration with colleagues from across the organisation a new draft Data Strategy (Appendix A) has been developed. Through four key data themes, the draft Data Strategy sets out a series of commitments to take forward the Council's data capacity and capabilities. • This report provides Cabinet with an overview of the development of the draft Data Strategy and outlines how the strategy will be used as a roadmap to establish data as a valued organisational asset, key to shaping and aiding the delivery of services and central to supporting strategic decision making. 	

Recommendations

1. That Cabinet notes the content of this report and the draft Data Strategy (Appendix A).
2. That, subject to recommendation 1, Cabinet endorses and approves the Data Strategy (Appendix A).

Reasons for Recommendations

1. To enable Cabinet to consider the draft Data Strategy.
2. To ensure the Council adopts a Data Strategy, providing a framework for the development of data work across the organisation.

1. Background

- 1.1 In November 2023 Cabinet approved the Digital Strategy 2023-2028. The Digital Strategy sets the vision for improving digital capability across the organisation. The Digital Strategy focuses work through four key themes: Community and Involvement; Organisation and Processes; Digital People and Skills; and Data and Insight, each of which has two key commitments.
- 1.2 The Data and Insight theme sets out a commitment to develop a Data Strategy for the organisation to support the delivery of the Data and Insight theme's two commitments, to Invest in & Harness Data Insights to Inform and Improve Decision Making and Use Clear Standards to Ensure Effective Data Sharing. Each theme has a series of key actions and activities required to ensure that the themes are embedded within the organisation's approach to delivering digital outcomes.
- 1.3 Once consultation on the draft Digital Strategy was published in July 2023, work to develop a draft Data Strategy began. A review of the UK Government's National Data Strategy, the Welsh Government Digital Strategy for Wales and existing local authority data strategies and the findings of the Digital Strategy development workshop sessions was undertaken, and four key themes were identified to shape the draft Data Strategy. The identified key themes were: Data Culture, Insight & Data Analytics, Data Governance & Management and Infrastructure for Data.
- 1.4 To develop the draft Data Strategy the approach used to inform the development of the Digital Strategy was followed with a series of workshop engagement sessions for colleagues across the organisation involved in data work and these were held on the four identified key themes. Discussions focussed on the key issues, opportunities and priorities faced across the

organisation against each data theme. Colleagues were asked to consider how the development of a data strategy could not only help in the delivery of the Digital Strategy and its alignment with the organisation's Corporate Plan, but to think of data in the context of the Well-being Future Generations (Wales) Act and the Five Ways of Working, in particular thinking to the long-term.

- 1.5** The feedback received through these workshop sessions was analysed and presented to a Heads of Service and Strategic Leadership Team joint workshop session focussed on the development of the data strategy. Feedback from this session was then used to identify the commitments that are set out in the draft strategy.

2. Key Issues for Consideration

- 2.1** The draft Data Strategy, attached as Appendix A, sets a focus for embedding a strong culture of data across the organisation. This is encapsulated in the Strategy's vision:

'Data will be treated as a key organisational asset. It will be central to our strategic decision making, helping us to deliver our organisational objectives. Through its effective use we will continue to innovate our services to the benefit of current and future communities of the Vale of Glamorgan.'

In taking this vision forward and reflecting on the linkage between colleague workshops, the draft Strategy is structured across four key data themes; against these themes are set a number of commitments which will support the delivery of the Strategy. The four data themes of the Strategy are:

1. Embedding a Data Culture
2. Taking Forward Insight Analytics
3. Ensuring Robust Data Governance and Management
4. Designing Infrastructure for Data

- 2.2** The work to deliver these themes will be varied, from supporting the continued sharing of good practice through the established internal Data Development Network, to the use of predictive analytics. Full details of the commitments are set out in the draft Strategy. The draft Data Strategy will enable the essential work to be taken forward in partnership, through collaborative work across the organisation.

- 2.3** The draft Data Strategy provides a focus for and reflects the ambitious vision for using data within the organisation. It is not however intended to be the start of work to advance the use of data, as there are many examples of good practice that have been progressed by teams across the organisation, some of which are included as case studies within the draft Strategy.

- 2.4 In creating this strategy, it is recognised that there are opportunities to continue to build on this good work and to utilise emerging technologies such as Artificial Intelligence (AI) to ensure that the Council continues to enhance its knowledge of its communities it serves and how services can best be delivered to support these communities.
- 2.5 The draft Data Strategy will not be taken forward in isolation, it is directly linked to the Digital Strategy and will aid the delivery of, and support the commitments set out in the Information Governance Strategy , the People Strategy, the Workforce Strategic Plan, the Medium-Term Financial Plan and the Corporate Plan.
- 2.6 To assist with the delivery and monitoring of the draft strategy a dynamic action plan will be developed against the commitments set out under each theme, ensuring alignment of this work with formal performance management arrangements. The monitoring of this action plan will be overseen by the Strategic Insight Board.

3. How do proposals evidence the Five Ways of Working and contribute to our Well-being Objectives?

- 3.1 The draft Data Strategy will form a part of the Council’s integrated planning, including delivery of its Corporate Plan commitments, to work innovatively, using technology, resources, and our assets to transform our services so they are suitable for the future, enabling the delivery of the Council’s Well-being Objectives.
- 3.2 The draft Strategy takes into consideration our Reshaping Programme, Project-Zero and the Public Participation Strategy which will act as an enabler to this work.
- 3.3 The draft Strategy provides a strategic focus to our development of our data, in order to support our staff to provide the best possible service to our citizens and the communities we serve.
- 3.4 The draft Data Strategy has been developed collaboratively, involving of a large number of colleagues through a series of workshops that specifically considered the Well-being of Future Generations (Wales) Act and the Five Ways of Working. The involvement of colleagues across the organisation in the delivery of the strategy will continue through the established Data Development Network and commitments to share knowledge and best practice in data work across the organisation.
- 3.5

4. Climate Change and Nature Implications

- 4.1** The draft Data Strategy is directly linked to work that is being taken forward by the Council's Project Zero programme. Specifically, continued work to improve the organisation's insight function will aid improved understanding of carbon emissions and the actions that might be taken to mitigate these emissions in the organisation's work to become net-zero.

5. Resources and Legal Considerations

Financial

- 5.1** The draft Data Strategy outlines commitments to improve the Council's data capacity and capabilities. This work will be met within existing resources.

Employment

- 5.2** There are no employment implications arising as a direct result of this report.

Legal (Including Equalities)

- 5.3** There are no direct legal implications arising from this report.

6. Background Papers

16th November 2023, Cabinet Report, [Digital Strategy Update](#)

20th March 2024, Corporate Performance and Resources Scrutiny, [Digital Strategy Review – Vale of Glamorgan](#)

'A Data Driven Vale'

A Data Strategy for the Vale of Glamorgan Council

2024-2028

Introduction:

The technologies that enable the gathering, storing, management and interpretation of data are rapidly innovating. Opportunities are now presented to utilise both structured and unstructured data to understand our communities, their needs and the best way in which to deliver effective and efficient services. The Council receives and produces large amounts of data daily. This Strategy set out a framework through which we can continue to be innovative and improve our use of data across the organisation. Whether through the real-time application of data to aid our response in the moment, or through the analysis of long-term trends to inform our strategic decision making; the effective use of data can help the organisation to deliver its ambitions.

This strategy aligns with our Digital Strategy and the recognition of the importance of Data and Insight as one of its key themes. Through the Digital Strategy and this Data Strategy we recognise the power data, and the data that we hold as an organisation has to help us to understand the needs of our residents, their experiences and how we can best deliver services to respond to these needs and experiences.

We recognise that data is not one thing, but can mean different things to different people, the UK Government's [National Data Strategy](#) defines data as:

'Information about people, things and systems. While the legal definition of data covers paper and digital records. Data about people can include personal data such as contact details, records generated through interaction with services or the web, or information about their physical characteristics (biometrics) and can extend to population-level data, such as demographics. Data can also be about systems and infrastructure, such as administrative records about businesses and public services.'

Embedding a strong culture of data use across the organisation, where the correct and safe handling of data is prioritised and where data is central to the operational and strategic decision making of the organisation is the central tenant of this strategy.

This is encapsulated in our vision for data/this strategy which supports the Council's vision of strong communities with a bright future:

'Data will be treated as a key organisational asset. It will be central to our strategic decision making, helping us to deliver our organisational objectives. Through its effective use we will continue to innovate our services to the benefit of current and future communities of the Vale of Glamorgan'

This strategy will aid the delivery of, and reflects the commitments set out in; the Digital Strategy; the Information and Governance Strategy; our People Strategy and Workforce strategic plan; the Medium-Term Financial Plan and the Council's Corporate Plan.

The Data Strategy sets out four key themes through which we will work to become a data driven organisation, these are:

1. Embedding a Data Culture
2. Taking Forward Insight and Analytics
3. Ensuring Robust Data Governance and Management
4. Designing Infrastructure for Data

How we developed this data strategy:

The need to develop a data strategy for the organisation was identified through work undertaken to produce the organisation's Digital Strategy 2023-2028. The Digital Strategy identified Data and Insight as one of its four key themes. Within this Data and Insight theme two commitments are set out for the organisation:

Commitment 1 – Invest in and harness data insights to inform and improve decision-making.

Commitment 2 – Use clear standards to ensure effective data sharing.

Following the launch of the consultation on the Digital Strategy in July 2023, engagement and consultation began with colleagues from across the organisation involved in or taking forward data work. The focus of this engagement work was to discuss and consider the importance of data to the organisation and how through this strategy we could build-on, embed and take forward current work.

Utilising the approach that was used to inform the development of the Digital Strategy, a series of workshop engagement sessions for colleagues across the organisation were held on the four identified themes for this strategy: data culture, insight and analytics, data governance and management and infrastructure for data. Discussions focussed on the key issues, opportunities and priorities faced across the organisation against each data theme. These workshops involved over 50 colleagues from each directorate of the Council. Colleagues were asked to consider how the development of a data strategy could not only help in the delivery of the Digital Strategy and its alignment with the organisations Corporate Plan, but to think of data in the context of the [Well-being Future Generations Act](#) and it's Five Ways of Working, in particular thinking to the long-term. The feedback received through these sessions was analysed and combined to identify the priorities to be taken forward by this strategy.

Our Progress so Far:

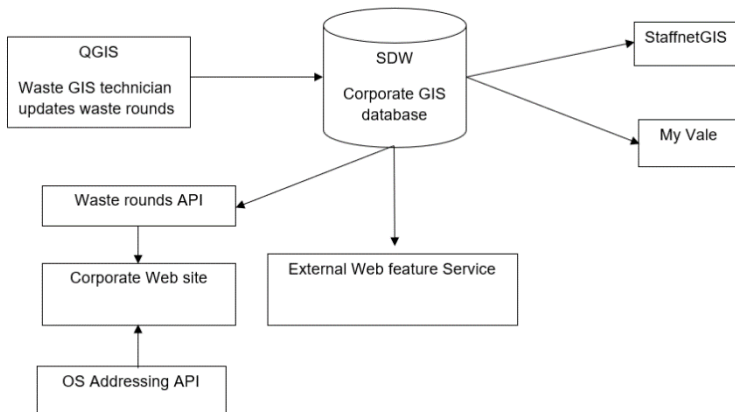
This data strategy is not the start of the organisation's journey with data but reflects the good practice and different strands of data work that have been progressed by teams across the organisation over a number of years. This strategy re-affirms the organisations commitment to take this work forward and further develop our data capacity and capabilities.

We are proud of the progress we have made to date. Data work has played a critical role in the organisation's response to the challenges of COVID-19, the Cost-of-living crisis and our current budgetary pressures. We recognise however, that there are further opportunities presented by new technologies and innovative data work to improve our knowledge of our communities and the services that we deliver to support our communities.

The Vale Geographic Information Service (GIS) has extensively embedded 'data as a service' to the use of the Open Geospatial Consortium standard Web Feature Service into websites and applications. Through the use of QGIS - an open source GIS application - and the Council's established Spatial Database Warehouse, live waste round data can be used by our contractors, through a Web Feature Service, and the business and customers through applications like [StaffnetGIS](#) and [MyVale](#).

The Social Services Business Intelligence and Service Development Team have been progressing the use of Microsoft PowerBI to visualise and create Dashboards for performance reporting in the Directorate. This project has and continues to utilise a number of key data skills including the use of DAX code, Automation and Row Level Security. This work continues to develop with Data Science approaches such as the use of Python and SQL programming languages, alongside the innovative use of Microsoft SharePoint to ensure data security. Learning from this work is being shared through the Council's Data Development Network.

The Strategy and Insight Team, working with the Communications and Participation team have begun to implement data science approaches to the analysis of open data responses. Using the Python programming language, Natural Language Programming models have been implemented to assess the Sentiment and the most common phrases used in responses. This analysis provides improved insight into our engagement and consultation responses and the identification of key issues.



The Learning and Skills data team has effectively utilised PowerBI to create a suite of workbooks that aided senior leaders during the latest Estyn inspection. These workbooks offer comprehensive analysis of pupil census data and attainment spanning the past 8 years. They empower leaders with in-depth insights and facilitate exploratory data analysis of various learner vulnerability factors, enabling informed decision-making and targeted interventions.

Embedding a Data Culture

A data culture refers to an organisational environment where data is not only a valued asset but is readily accessible and is consistently used within the decision-making processes. It is a culture where data use, data literacy and data driven insights are widespread.

Our Commitments:

To take forward and embed a data culture we will:

- Promote data as a key asset to be treated correctly and used to improve the delivery of services.
- Consider data as a central and important element to be built into our procurement activities from the start.
- Ensure that data including performance management data is integrated into decision making by senior leaders and elected members.
- Value the data skills of colleagues as well as recruiting new data talent to the organisation.
- Provide opportunities for colleagues to undertake data specific training and promote the development of data literacy.
- Encourage the sharing of data skills and learning through the established internal Data Development Network.
- Develop a central bank of data projects and good practice to further encourage the sharing of learning and outcomes.
- Further develop the communities of practice that have been established under the Data Development Network.
- Encourage a programme of internal data mentorship sharing of knowledge and skills between more advanced and developing parts of the organisation.
- Review best practice in data work and apply these to our work.
- Support and encourage the effective sharing of data and break down barriers to data being shared across the organisation.

Taking Forward Insight and Analytics

The effective use of data can lead to innovation, be used to identify future trends and can improve outcomes for our communities. Through the correct analysis of data, we can draw meaningful insights and learning which can be used to inform our decision making and improve service delivery.

Our commitments:

To deliver effective insight and analytics we will:

- Support the organisation to move away from the reactive use of data to embedding insight and moving towards foresight through the consideration of trends and the use of predictive analytics.
- Make the most of opportunities to link our data to develop a richer understanding of our communities and services.
- Align analytical skills with business priorities, working across service areas.
- Explore and take forward the use of data science approaches.
- Support and encourage the uptake of data science training and learning opportunities.
- Integrate organisational data sources with our performance metrics to facilitate evidence-based decision making.
- Make our performance data more readily available to colleagues and elected members.
- Explore the concept of verified Vale of Glamorgan datasets, which are the highest level of trusted information within the organisation.
- Utilise new technologies, such as Artificial Intelligence and Machine Learning to improve our service delivery.
- Continue to develop the use of Data Analytics tools to improve the insight gained through analysis and sharing of data.
- Explore opportunities presented through the collaborative sharing of data with partners.

Ensuring Robust Data Governance and Management

Robust data governance and management is about the correct handling of data and ensuring compliance with all necessary data legislation and policy. It is also about utilising the power of this legislation to enable the effective sharing of data to facilitate insights to be drawn from data.

Our commitments:

To ensure that correct data governance and management processes are followed we will:

- Facilitate the safe and effective sharing of data held across the organisation.
- Ensure alignment of work with the Information Governance Strategy and its future aspirations.
- Ensure that data and information are stored securely and are compliant with cyber security standards and procedures.
- Develop our organisational approach to Metadata.
- Continue to develop awareness and skills in data governance across the organisation.
- Establish governance procedures and policies for data tools.
- Develop a greater understanding of safe data sharing procedures, including the development of a library of Data Protection Impact Assessments, Data Sharing Agreements and Privacy Notices.
- Make more of our data available to be accessed by members of the public through our Open Data offer.
- Create and maintain a data catalogue which will set out the data owned and used across the organisation.

Designing Infrastructure for Data

Data infrastructure refers to the organisational components – hardware, software, networking, people and skills – that enable data processing, consumption, storage and sharing. Having an effective data infrastructure enables the right data to be accessed and analysed in the correct way to inform decisions.

Our Commitments:

To deliver an effective infrastructure for data we will:

- Promote understanding of the opportunities offered through the implementation of more advanced approaches to data architecture.
- Integrate data from across the organisation into a data repository for use by all.
- Support the continued development of cloud-based storage and data linkage.
- Make the most of opportunities presented through data infrastructure to facilitate internal and external data sharing.
- Explore the use of Application Programming Interfaces (APIs) where possible.
- Support the continued access to appropriate data tools to facilitate the correct manipulation and analysis of data.
- Facilitate the automation of data processes to deliver greater efficiencies.
- Ensure that any third-party software enables integration with existing systems and the exporting of data.

Delivering and Monitoring the Data Strategy:

As established, this Strategy does not mark the start of the organisation's data journey but brings together our commitments to take our data work forward. To do this we will build on strengths and address the concerns that have been identified through our engagement with colleagues leading on data work in the organisation. We recognise that that commitments we have outlined in this strategy will not be delivered overnight, work on some commitments has begun, while the delivery of others will take us longer.

To assist with the delivery and monitoring of the strategy we will develop a dynamic action plan to take forward our commitments and ensure the alignment of this work with our formal performance management arrangements. The monitoring of this action plan will be detailed in comprehensive reports, providing a clear overview of the strategy's progress. These reports will be reviewed by the Strategic Insight Board to ensure effective overview of the strategy and its delivery. We will review the Data Strategy after its first year of operation and as required following that.

Through our data strategy and its alignment with our digital strategy we have set out a roadmap to a more innovative future for the organisation where data is a valued asset and key to the shaping and delivery of our services and central to supporting decision making.

Glossary:

Artificial Intelligence - technology that enables computers and machines to simulate human intelligence and problem-solving capabilities. Encompasses machine learning and deep learning. These disciplines involve the development of AI algorithms, that can 'learn' from available data and make increasingly more accurate classifications or predictions over time.

Application Programming Interfaces - a software intermediary that allows two applications to talk to each other. APIs are an accessible way to extract and share data within and across organizations.

Cyber Security - the protection of the devices and the services from theft or damage. The prevention of unauthorised access to the information stored on these devices.

Data Analytics – the extraction of insights and meaning from data.

Data Architecture – A set of rules, policies, standards and models that govern and define the type of data collected and how it is used, stored, managed and integrated within an organisation and its database systems.

Data Governance – the formal management of data assets within the organisation in accordance with legislative requirements.

Data Literacy – knowledge of data uses and ability to assess the quality of data and how best it can be used for the purposes of analysis.

Data Science - A blend of a variety of tools, including algorithms and machine learning principles to discover patterns and knowledge from data. It is an interdisciplinary field that involves the use of statistical and computational methods, tools and techniques.

Metadata - Information describing the characteristics of data.

Open Data - Open data is data that is published in a way that allows anyone to freely and easily access and use it. This may be in the form of an open spreadsheet saved in a non-proprietary format published on a website or an open data feed that allows users to link directly to the data.

Predictive Analytics - the use of data to predict future trends and events. The use of historical data to forecast potential scenarios that can help drive strategic decisions.