

CORPORATE AND COMMUNITIES OVERVIEW AND SCRUTINY PANEL 25 JULY 2023

UPDATE ON DEVELOPMENTS RELATING TO THE POWER BI PROJECT

Summary

1. The Corporate and Communities Overview and Scrutiny Panel has requested an update on recent developments in the Power BI project and the associated benefits for data management.
2. The Cabinet Member with Responsibility for Corporate Services and Communication, the Strategic Director and Senior Officers from the Commercial and Change Directorate have been invited to the meeting to update the Panel and respond to any queries Panel members may have.

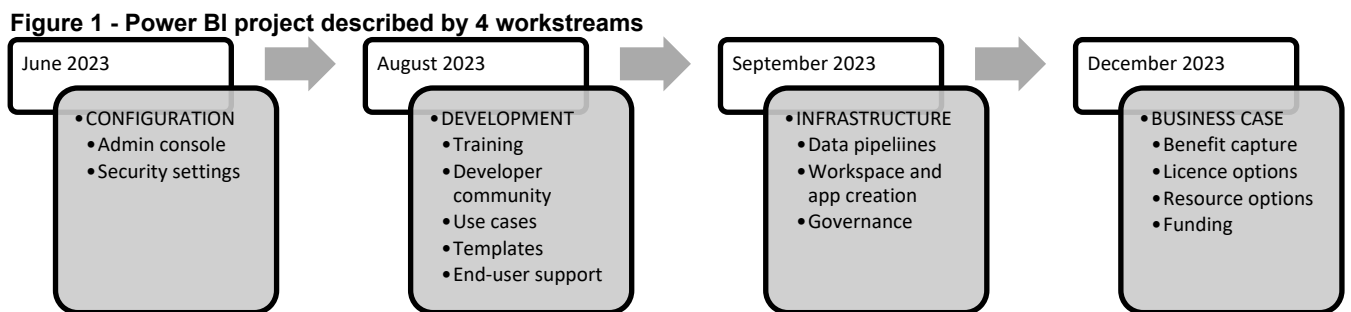
Background

3. The Panel has previously been updated on the roll out and development of Power BI, the most recent of which was on 19 January 2023, which is available here: [Weblink to Agenda and Minutes](#)
4. The Council purchased a Power BI Premium licence in late 2022 (having previously used approximately 200 individual “pro” licences for developing and sharing reports to specific groups). The rationale for investing in a Council wide licence is to allow for wider sharing of developed reports and dashboards (theoretically with every member of staff) and to facilitate the increase of more interrogatable and dynamic reporting of management information across the Council.
5. The Power BI project aims to manage the roll out of usage of Power BI across the Council, providing guidance and support for developers whilst identifying and controlling risks around the misuse of the application (including inappropriate publication of data).

Plan for Use of Power BI / Power BI Premium Instance

6. The aims of the Power BI project are to assist in the creation of monitoring frameworks and dynamic reporting and visualisations across the Council governance and decision-making forums, such as Scrutiny Panels, Cabinet, Senior Leadership Team (SLT), Chief Officers Group (COG), and Transformation Board, as well as providing an opportunity to standardise how Council data is presented to management teams and in the public domain.

7. Power BI has the potential to enable the Council to design leaner reporting processes and connect data from various sources in a less labour-intensive way than for traditional “static” reports, and free up resources to conduct more in-depth analysis.
8. During the first 12 months of the Premium licence, the objective is to establish a core set of reports that either replace existing static reports or provide new insight in a more efficient and interactive way.
9. The Power BI project can be described by four workstreams, shown in Figure 1 below.
10. An associated benefit of the project is the opportunity to divert more of the Council’s locally managed data through more of a central process, where data quality and permissions can be more effectively controlled, and in some cases reducing the need for third-party data processing, which reduces costs.
11. Before the end of the initial licence period, a business case for ongoing investment in licence(s) and capacity will be developed.



Building Capacity and Skills

12. As part of the project, an internal community of Power BI developers has been established, with a dedicated Microsoft Teams site for developers to share examples and pose questions. There are approximately 50 developers across the Council and Worcestershire Children First (WCF).
13. At the start of the financial year, the Council procured a training partner / consultant (4C / Meesh Consulting) to deliver beginner and intermediate training to developers and support development of three use cases (performance and productivity, budget monitoring, home to school transport) in advanced workshops. Three training courses have been successfully delivered, and the advanced workshops are under way. The contract will run until the end of July 2023.

14. Meesh Consulting are also providing support for establishing corporate approaches to the use of Power BI, including standardisation of reports and templates, providing advice and best practice for sharing reports (internal and external) the use of workspaces, and the development of data pipelines to allow for more dynamic reporting (where data is updated on a frequent basis and reporting needs to reflect this).

Examples of Current Developments and Live Reports

15. An increasing number of management information reports across the Council are now being delivered or developed using Power BI. As of 12 July, there were 270 published reports, and some examples are shown below. In particular, there are a number of reports now in the public domain to improve transparency of Council data to the public:

- a) Performance and productivity, risk, budget monitoring and workforce analytics. (Collated into a single standard “management report” for every level of the Council)
- b) Member Portal (updating daily with new queries)
- c) Home to school transport forecasting and benchmarking
- d) Staff survey and resident viewpoint reports
- e) Roll out of scrutiny panel performance reports
- f) Operational intelligence for Adult Social Care
- g) GP Practice Population Dashboard
- h) Commercial intelligence
- i) County Economic Summary
- j) Corporate Plan monitoring report.

Standardisation of Approach (Templates and Data)

16. Following an initial period of ad hoc development, the Council is now seeking to establish common standards for report design, incorporating the corporate colour scheme and logos wherever appropriate. This ensures that all developers are working towards the same presentation standards.
17. Common standards (including date ranges and filtering options) are to be adopted, along with standard language and terminology so that the end-user receives a consistent experience. Style guides (similar to those agreed as part of the internet and intranet reviews) are in the process of development to ensure that all reports have a similar look and feel (and this may result in some changes to presentation of existing reports). A page containing metadata (descriptions of the data used in the report, sources, and the latest data refresh) is to be included as standard in every report.
18. For reports that are published in the public domain, accessibility requirements will be considered. Currently, Power BI reports are used as a supplement to other reports to ensure that accessibility legislation is complied with.

19. The use of endorsed datasets, created and managed by the Data Architecture team (ICT and Digital) and shared with developers on a permissions basis, is being encouraged wherever possible. This ensures that developers are using the single version of truth and allows for the managed update of dynamic datasets for reports that change frequently (for example those that refresh overnight). There are currently 15 corporate datasets in use.
20. Following a period of proof-of-concept development, a new end-to-end process for requesting Power BI reports is to be established, including appropriate processes for creating sustainable data pipelines that will drive improved data quality and ensure that reports can be appropriately refreshed.

Culture and Transparency

21. The shift of reporting from traditional static reports (in MS Word, MS PowerPoint etc) to interrogatable reports in Power BI will only be successful if end-users are appropriately supported to use the new application confidently, without the need to resort to static copies.
22. A new training course is due to be rolled out later this month to provide guidance for end users in opening and navigating Power BI reports. It is recommended that all managers view the brief course to familiarise themselves with Power BI. The Council is also supporting elected members around full Council meetings, and a stand at the Council's management conference is being arranged.
23. A key difference in Power BI reporting will be in how reports are shared. For example, reports can be created using a common link that anyone in the Council can access, or via more controlled defined audience groups (such as Chief Officers Group or the Business Intelligence team). It will not be possible to attach Power BI reports to emails. The use of Power BI apps (which can be embedded in Teams sites) is the desired approach for sharing reports internally.
24. A key benefit of Power BI (over and above the use of static reports) will be to increase transparency of the Council's data. Engagement with chief officers has included recommendations to endorse and promote an improved culture of data transparency, by ensuring that business critical datasets are supported and managed by Data Architecture staff (to enable more certified datasets for use in Power BI).

Certified Datasets

25. The use of certified datasets by Power BI developers has the associated benefit of driving improved data management. Less datasets will be managed locally by teams and shared via network folders. Central management of data sets allows for consistent approaches to managing data quality and refreshing schedules. This is particularly important for Power BI reports that need to update on a frequent basis.

26. Officers have established a request process for defined certified datasets that are centrally managed and made available to Power BI developers on a permissions basis (i.e. access to certified datasets can be restricted to specific users or made available to anyone depending on the nature of the data). 15 corporate datasets are in production.

27. Examples of certified datasets include an e5 (finance) extract to allow development of finance reports and budget monitoring, and member portal data to allow the development of reports to monitor member queries and responses.

Funding Requirements

28. By the end of the current financial year, there will be a need for ongoing funding for both the Power BI licence and dedicated capacity for development (including development of reports and creation and management of data pipelines). There is currently no budget assigned for Power BI and the only resources are existing staff from the Business Intelligence Unit, ICT and Digital, Transformation and Change Team, Finance, and some staff in frontline services.

Purpose of the Meeting

29. The Panel is asked to consider and comment on the report and

- Determine whether any further information or scrutiny on this topic is required
- Agree any comments to highlight to the Cabinet Member

Contact Points

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Background Papers

In the opinion of the proper officer (in this case the Assistant Director for Legal and Governance), the following are the background papers relating to the subject matter of this report:

- Agenda and Minutes of Corporate and Communities Overview and Scrutiny Panel on 19 January 2023 and 17 January 2022

[All agendas and minutes are available on the Council's website here.](#)