



University
of Glasgow

BUSINESS INTELLIGENCE STRATEGY - SUMMARY

**Business Intelligence Informs Organisational Change
and Performance Management.**

*Planning &
Business
Intelligence
2016*

Business Intelligence Informs Organisational Change and Performance Management

Aim

1. Our overarching strategy can be found here - http://www.gla.ac.uk/media/media_434476_en.pdf
2. The main aim of the Business Intelligence (BI) Strategy is to deliver accurate and timely data, analysis and intelligence from our central Data Warehouse to a range of colleagues including, SMG, School/RI and University Services. This will become our *one version of the truth* ensuring that discussions about data are meaningful, proactive decisions are made and intelligent analysis is delivered all with the same aim of helping us be world class and a world changing university.
3. Our BI delivery will include the following –
 - Analysis to help *strategic decision making*;
 - Access to data at the touch of a button, empowering colleagues and *freeing up valuable time and resource* for value added work;
 - *Improved data quality* from the processes involved in placing data from our Corporate Systems into our Data Warehouse and from presenting data back to users in a focussed, clear and transparent manner.
 - Reduce ambiguity in the day to day operational decisions;
 - Break down the silo'd reporting structures and present data horizontally based on business events;
 - Readily available HESA data in an analytical format which links to operational reporting and quality assurance checking;
 - Reduce reliance on out of date bespoke tools, like Bi-Query, by replacing.

Why

4. The University needs timely access to trusted data in order to inform decision making, improve alignment with the strategic plan, improve efficiencies and effectiveness, reduce operational costs, ensure statutory compliance and minimise risk.
5. The global Higher Education market has become fiercely competitive. To succeed, the University of Glasgow must successfully compete for student income as well as government and research funding. To compete for these limited resources, we must be able to answer a range of critical business questions that will include –

- How many annual registrations do we require – of a full fee paying, government supported and SFC nature – to remain profitable and secure desired levels of government funding?
 - Do we have access to the right student, research, performance and departmental data to compile effective research grants?
 - Are we reporting the right information, in the best way possible, to government bodies to boost our comparative rankings, meet compliance requirements and secure desired funding levels?
 - Are we building the right infrastructure in the right locations to support student satisfaction, learning, retention and successful graduation?
 - Are our industry partnerships aligned with current student courses to ensure relevancy and boost successful job placement upon graduation?
 - Can university academic and business decision-makers easily analyse operational data, from across Colleges, Schools and Services, to make better decisions in a budget sensitive climate?
6. To be able to address and effectively respond to these types of questions requires timely access to accurate student, research and operational data.

How

7. With oversight from a BI Steering Group (BISG), chaired by Prof Neal Juster, we will build a Data Warehouse and from this Warehouse deliver a range of real time standard reports and interactive self-service reports as well as Executive Dashboards for ease of visibility, business insights, time savings, on-going improvements, progress against plans and to monitor improvement.
8. In terms of high-level practical components –
- We will centralise our operational data in a DW
 - We will remove the reliance of operational system reporting by decommissioning tools like BIQuery from our BI estate
 - We will integrate governance, rules and data quality assessments into our data
 - We will build a University Data Dictionary to support the understanding of our data for all of our colleagues.

When

9. The Programme is taking an Agile approach to delivery – this means that we will build BI models following decisions at the BISG and the data used will be added to the Data Warehouse. Each cycle is 6 weeks long and results in a highly focussed and highly compressed project timescales, resulting in applications that users can access immediately and minimises/avoids many of the risks associated with longer project methodologies.

Prioritising

10. There are a number of ways that ideas for new BI Projects will come to the Steering Group. The most likely are –

- The Chairs of the Strategic workstreams – Focus, Agility and Empowerment;
- Through the College Secretaries;
- Through the Planning and BI Team;
- Through the members of the BI Steering Group;
- Through HOSAs.

11. Each Proposal will be presented to the BISG on a *Project Brief* form worked up between the BI team and the local area seeking the BI support. The BISG will decide both whether the project should be developed or not and the priority having given consideration to –

- Does the proposal help the University to meet the aims and objectives of the Strategic Plan?
- Is it clear that the proposal will lead to better decisions making?
- Is it clear that the proposal will mean a significant time saving for one or more members of staff – preferably a significant number of staff?
- Are the requesters willing and able to provide appropriate time and expertise to ensure that the BI Model is developed to meet requirements and testing is carried out promptly to ensure minimal delay?

12. Approved Projects will then be added to the work plan and an estimated timeframe will be agreed. Progress on all current projects will be reported at each BISG.

What will be different?

13. The provision of better analytics and insights will greatly improve our decision making and the time to make those decisions. We will have greater insight into the university's strengths and weaknesses and we will better understand how the university has to react to the environment in which it operates. Added together, these changes will ensure a more informed evolution of the University of Glasgow as it seeks to implement its strategic plan.

Tools

14. The delivery of BI and Data Warehouse will use the following leading toolsets –

Qlik – Qlik is one of only 3 Visionaries and Leaders within the Gartner Magic Quadrant 2016 for BI and Analytics Platforms (together with Tableau and Microsoft),

see Annex A. Qlik will be used for visualisations, interactive self-service dashboards and producing Executive style Dashboards – for both paper and interactivity.

IBM TM1 – this tool is part of the Cognos family and is a Planning platform that can be used for target setting, budgeting, scenario planning and forecasting.

ODI – Oracle Data Integrator is a tool for taking data from our corporate systems and populating the Warehouse—known as an ETL tool (Extract, Transform and Load).

15. For clarity – Qlik and TM1 complement each other, they do not offer the same functionality.

Resources

16. Resources to deliver both Qlik, TM1 and the Data Warehouse are in place –

- Two dedicated Qlik developers have been recruited and are complimented by one existing Qlik Developer within Planning and BI. There is also a BI Lead within Planning who spans all the toolsets and a BI developer within ITS who is working on Qlik and the Warehouse.
- There is currently 1 TM1 developer with budget to recruit one more.
- We are utilising a contactor along with the BI Lead to deliver the design, content and performance of the Data Warehouse. ITS colleagues will be responsible for the infrastructure.
- Project Management between ITS and Planning and BI.

End Game

17. The end game is really about two things – informing organisational change and delivering Performance Management, both in support of our strategic ambitions. This will include organisational change and introducing a more performance management culture. By implementing our BI Strategy we will improve the likelihood of success in achieving our overall University strategic aims; and the way we conduct our business will change for the better.

Planning and BI

May 2016

Magic Quadrant

Figure 1. Magic Quadrant for Business Intelligence and Analytics Platforms

