

Streamlining Home Office Data Collection and Dashboards



Butterfly Data helped the Home Office streamline project reporting and enhance dashboard performance through automation and improved design.

Challenge

Two reporting teams within the Home Office faced separate but related data and reporting issues, each hindering efficiency and clarity of output.

Quarterly Progress Reporting (QPR) inefficiencies:

One team was responsible for collecting Quarterly Progress Reports (QPRs) from around 100 projects, which were then manually collated into a Quarterly Monitoring Report (QMR). The process relied on emailed Word documents, which were then manually input into Excel spreadsheets. This method was time-consuming, error-prone, and lacked automation. The team recognised these inefficiencies and asked Butterfly Data to assess and suggest improvements.

Ineffective strategic dashboard:

A second team was developing a dashboard that visualised global threats for strategic leaders and ministers. However, the dashboard suffered from performance issues, suboptimal design, and unclear future direction. They sought both technical improvements to the code and design, as well as guidance on tools, hosting, and team capability development.

Solution

Butterfly Data undertook an initial discovery phase to gather requirements and understand existing constraints before providing tailored solutions. For QPR process optimisation, two options were considered: a short-term R script to extract content from Word files to Excel, which was fragile and not scalable, and a long-term Microsoft Forms solution allowing project teams to submit reports directly into a connected Excel spreadsheet. The latter was recommended for its scalability, reliability, and improved automation.

For the dashboard redesign, improvements focused on backend optimisation—simplifying and modularising code, replacing HTML with lightweight R functions to reduce file size and improve maintainability—and frontend enhancements, including a clearer layout, a Home Office-aligned colour scheme, and moving the map display to a standalone tab. Regular review meetings ensured changes met user needs, and recommendations were provided on hosting, database integration, and team upskilling.

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The invaluable work that Butterfly Data has undertaken with a key collaborator of mine will feed directly into my work, making it both simpler and faster and enabling me to better identify data gaps. Incredibly useful. Thank you.

Key Project Stakeholder,
Home Office

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Impact

The new Microsoft Forms process for Quarterly Progress Reports (QPRs) has significantly streamlined data collection. Manual input from Word documents into Excel spreadsheets has been eliminated, reducing errors and saving substantial staff time. Project leads can now approve submissions digitally, creating a more efficient, scalable workflow that is easier to manage and maintain over time.

The redesigned strategic dashboard has also delivered notable improvements. File size has been reduced by over 50%, improving performance and load times. The interface is now cleaner, more intuitive, and aligned with Home Office branding, making it easier for users to interpret data quickly. Backend code improvements have simplified maintenance and ensured that future enhancements can be implemented with minimal disruption.

Overall, these changes have strengthened stakeholder confidence. Senior leadership can now rely on the dashboard to provide clear, actionable insights into global threats. Combined with the automation of QPR reporting, the Home Office teams are better equipped to focus on analysis, decision-making, and planning, rather than repetitive administrative tasks.



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