



[Lot 3 | Cloud Support]

SAS-on-Cloud:

Powering smarter decisions with a scalable,
enterprise-grade AI and analytics platform

Data behind every decision.

[Section 1: Who we are]

An **introduction** to Butterfly Data

- > About us
- > Value to the public sector
- > Operational approach
- > Capabilities and core services
- > Social values



Where purpose, people, and data come together

Butterfly Data delivers bespoke end-to-end data management and cloud-based solutions, turning complex ecosystems into strategic assets for informed, sustainable and transparent decision-making by our public sector clients.

We're a B-Corp certified, employee-owned consultancy with over 20 years of experience. Known for secure, compliant data practices, we offer the expertise of a big firm with the flexibility and values of a specialised team.

Driven by inclusivity, accountability, flexibility and innovation, we build lasting, trusted relationships with clients and partners by helping them achieve meaningful outcomes aligned with their visions.



Value to the public sector

Butterfly Data goes beyond contractual deliverables, working collaboratively to solve real-world challenges through tailored, high-impact data solutions delivered transparently and without hidden costs.

Our experience spans bespoke solutions for public bodies and discreet, privacy-conscious engagements with government departments, reflecting a consistent commitment to integrity, professionalism, and meaningful outcomes.

As a technology-agnostic partner, we select the tools that are appropriate for each project, ensuring our solutions align with your objectives and are built to last.

Guided by a mission-led ethos, we co-invest in work that shares our values, whether through additional resources or team development. Our agile structure enables best-in-class service without the overheads of large consultancies, and we never charge for onboarding or activities not tied to tangible outputs.

By enhancing data quality, analytics capabilities, and governance frameworks, we empower public sector organisations to make confident, evidence-based decisions. We help ensure your time and investment deliver lasting value.

Operational approach

We deliver cloud-based data solutions through a multifaceted approach that combines creativity, flexibility, and security. We adapt to your specific needs while maintaining agility throughout project delivery, creating bespoke solutions that seamlessly integrate with your existing processes.



Capabilities

We specialise in helping organisations navigate the complexities of data and technology. We understand that identifying the right data services to overcome specific challenges isn't always straightforward. That's why we offer a comprehensive range of data management services, designed to be combined and tailored to meet your unique needs.

[Core services]

- Data Maturity / Readiness Assessments
- Cloud Adoption Support (including SAS on Cloud)
- Data Strategy and Governance
- Data Architecture and Engineering
- Data Integration
- Data Quality
- Data Transformation
- Data Privacy
- Data Science and Predictive Analytics
- Data Analysis and Visualisation
- Data and Model Migration

Social values

Our commitment to delivering outstanding data consultancy is matched by our dedication to creating measurable social value. We believe that the power of data should be used not just to drive performance, but to support people, communities, and the planet. As a trusted G-Cloud supplier, we aim to align with the Government's Social Value Model, ensuring every engagement contributes meaningfully beyond the contract.

[Our commitments]



[Section 2: What we do]

Detailed service definition

- > About SAS-on-Cloud
- > Alliance with SAS technology
- > Service features
- > Benefits of the service
- > Outputs and deliverables
- > Service approach
- > Client inputs and contributions
- > Service management and support
- > Service standards



Butterfly Data's SAS on Cloud service provides expert consultancy and operational support for deploying and managing SAS Viya environments in the cloud. Using our experience in public sector cloud migration and high-performance data solutions, we ensure secure, compliant, and scalable cloud analytics environments.

Our service covers the entire lifecycle of your cloud-based SAS platforms, from cloud migration and modernisation to ongoing support and management. This foundation empowers your organisation to implement advanced analytics, AI, machine learning, and automated intelligent decisioning to manage risk. It is all delivered through a collaborative, strategic, and outcome-driven partnership that builds trust in your data with your stakeholders, regulators, and customers.

Alliance with SAS technology

SAS is a global leader in advanced analytics, artificial intelligence, and data management software and services. As a SAS Gold Partner and Reseller, we demonstrate a high level of expertise and commitment to delivering innovative solutions using SAS technologies. This prestigious partnership status recognises strong technical capabilities, proven success in client implementations, and a close collaboration with SAS to drive value and business transformation for customers.



Service features

- Unified SAS environment:
Our unified environment supports both legacy SAS 9 applications and modern SAS Viya, maximising your existing investment while enabling phased modernisation. Seamless coexistence lets you harness Viya's AI and machine learning without disrupting current analytics to offer a smart, low-risk path to future-proof your SAS ecosystem.
- Certified SAS platform administrator expertise:
Our certified administrators ensure the reliability, security, and performance of your SAS environment, across both SAS 9 and SAS Viya, by tailoring platform management to each architecture. In SAS 9, we use SAS Management Console to handle user and group management, authentication, ACT-based access controls, metadata promotion, DI Studio job deployment, backups, scheduling, and Grid/LSF workload orchestration. For Viya, we leverage SAS Environment Manager and the Viya CLI to manage CASLibs, content hierarchy, license

tracking, authorisation rules, monitoring, alerting, and configuration - all aligned with modern DevOps practices.

We also provide expert Linux administration (RHEL, Ubuntu, CentOS) and script-based automation for both platforms, ensuring stability and scalability. Whether tuning a legacy SAS 9 grid or optimising Viya's queue-based workloads in the cloud, our platform expertise supports consistent, compliant, and high-performing analytics operations.

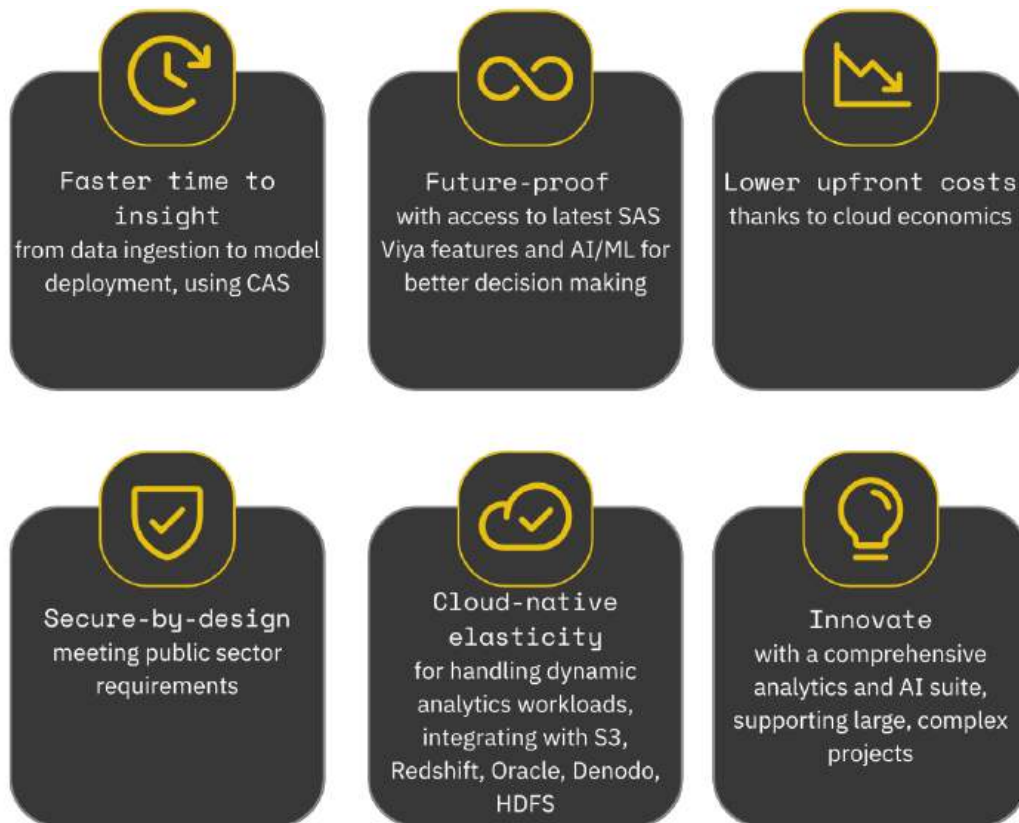
- Machine learning capabilities:
The service includes powerful machine learning capabilities using SAS Visual Data Mining and Machine Learning, Visual Statistics, and Model Manager to support techniques like decision trees, random forests, gradient boosting, neural networks, SVMs, regression, clustering, and sequence analysis. Combined with SAS Workbench and support for Python and R, we enable predictive insights, trend forecasting, and automated decision-making across all data types.
- Real-time, event-driven decision-making:
We specialise in real-time, event-driven decision-making using SAS Intelligent Decisioning. We design, deploy, and manage decision models and workflows that combine business rules, machine learning, and predictive analytics to automate risk management, reduce manual effort, and drive measurable results.
- Optimised investigations into risk and crime:
We are experts in leveraging SAS Visual Investigator to design and optimise investigations into financial crime, supply chain risks, and anti-money laundering. We work closely with stakeholders to deliver effective entity resolution, network design, link analysis, workflows, cold listing, index rebuilding, and RTENG configuration.
- Seamless integrations with native and external tools:
With deep expertise in SAS Viya 4 integrations, we help you seamlessly connect with native and external tools like Python, R, Power BI, Visual Studio Code, Jupyter Notebook, Microsoft Office, RESTful APIs, ODBC/JDBC connectors, Git and DevOps workflows, and cloud authentication (OAuth2, LDAP).
- Development and programming expertise:
Our specialists support SAS development environments across SAS Viya and SAS 9, including SAS Studio, Enterprise Guide, Visual Analytics, Visual Data Mining and Machine Learning, Event Stream Processing, and data preparation

tools. We're fluent in SAS (and CASL), Python, R, Java, and JavaScript, collaborating with data engineers, scientists, and analysts to review and optimise code, streamline workflows, and enhance performance.

- **Scalable cloud storage:**
Our specialists configure and support cloud storage solutions for your SAS deployment, integrating seamlessly with platforms like HDFS (Cloudera), AWS S3, Azure Blob, Snowflake, Redshift, Google BigQuery, Databricks Delta Lake, SingleStore, Lustre, and Elastic File Storage. These scalable, high-performance data sources power your analytics and operations while optimising cost and efficiency as workloads grow.
- **Data quality assurance:**
We ensure data quality, enrichment, and standardisation using powerful tools like Data Management Studio and Server, Loqate, Trillium, and custom QKBs to deliver clean, consistent, and trusted data to support accurate analytics and informed decision-making.
- **Data visualisation:**
We enable seamless data access and integration through data visualisation using platforms like Denodo, Informatica, QlikView, and SAS to provide a unified, real-time view of your data without the need for physical movement or duplication.
- **Scalable workload handling:**
We ensure our analytical and operational platforms fully leverage the scalability of Azure and AWS to handle workloads of any size. Using technologies like Kubernetes, Virtual Machine Scale Sets, and serverless computing, we provide seamless, reliable access to vital information to enable developers, analysts, and decision-makers to achieve business goals efficiently.
- **Expert deployment and operational support:**
Our service includes expert deployment on Amazon Web Services, Microsoft Azure, and Google Cloud Platform, automated with Infrastructure as Code (Terraform, CloudFormation, and Cloud Deployment Manager) for secure, scalable environments. Plus, full operational support, including cloud administration, user support, and access control to keep your platform running smoothly.

- Streamlined 'Route to Live':
We use Git-based platforms like GitHub, GitLab, Git-Runner, and Azure DevOps to automate the 'Route to Live', enabling continuous integration and delivery (CI/CD) that speeds up development, reduces manual errors, and ensures stable, frequent releases.
- End-to-end migration support:
We include support for Proof-of-Concept, sandpit environments, content assessment, gathering user stories, operational and analytical platforms, change management, discovery of batch processing and release management.
- Cost efficiency through TCO modelling:
We use Total Cost of Ownership (TCO) modelling during stakeholder engagement to help align solution options with your goals. This makes it easier to choose the right approach by balancing value, scalability, and long-term cost, while supporting your strategic and operational needs.
- Best practice ITIL service delivery:
We follow ITIL best practices for service delivery, including incident management, risk mitigation, user governance, escalation handling, and defining target operating models and effective ways of working.

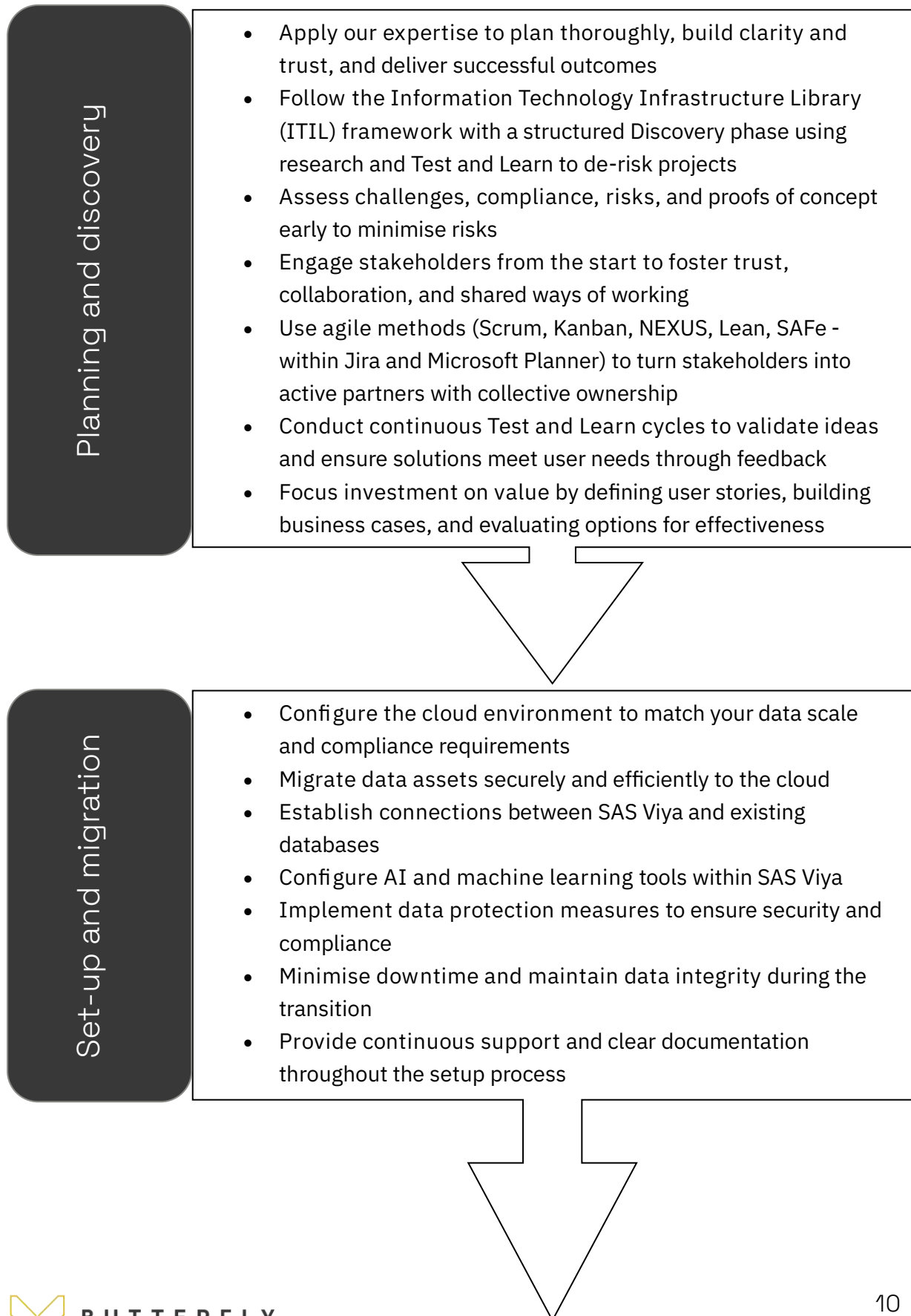
Benefits of the service

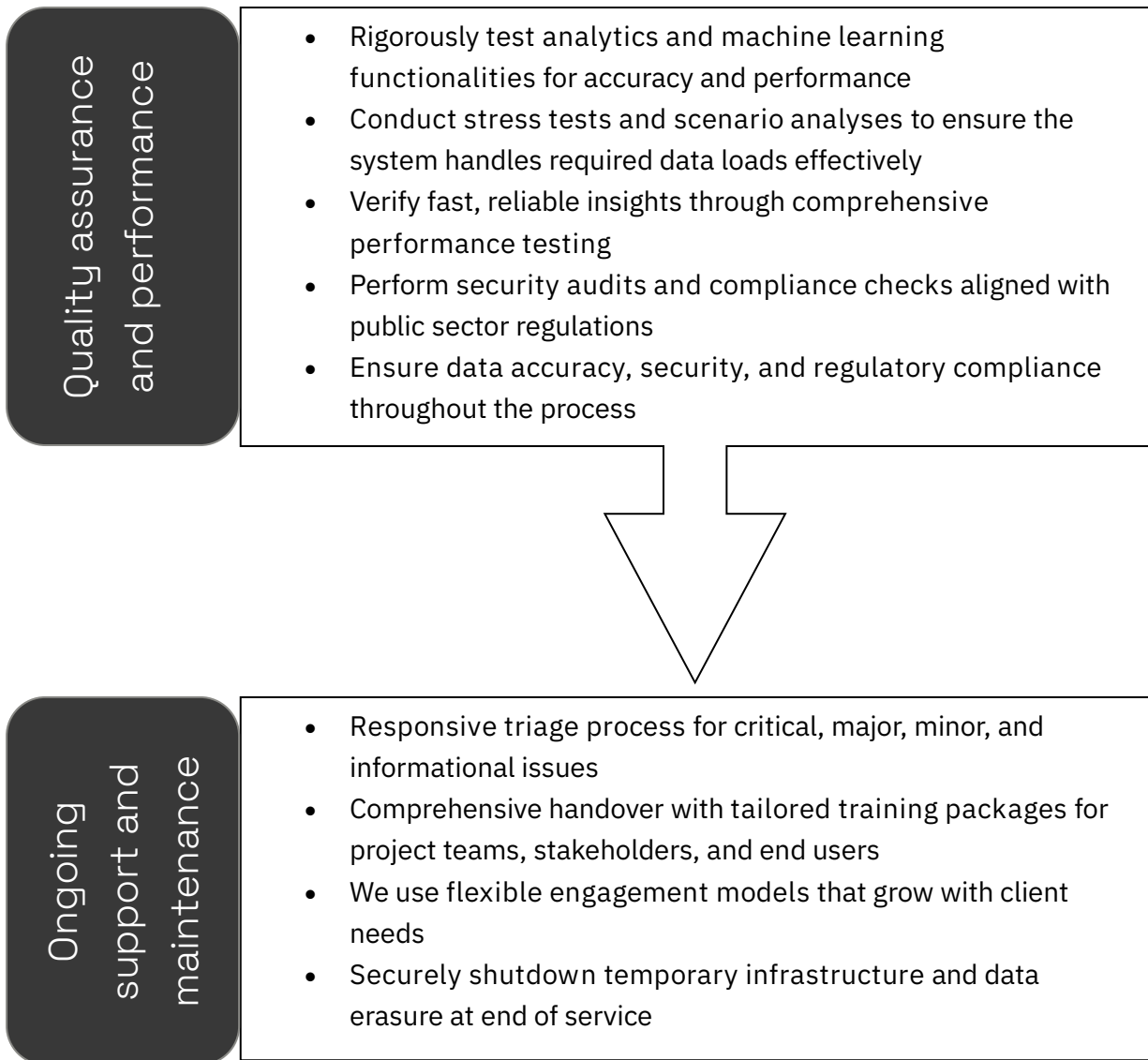


Outputs and deliverables

- Fully configured and operational SAS Viya environment
- Documentation of code migrations, data migrations, and risk mitigations
- Custom-built, interactive visualisations using SAS Visual Analytics
- Optimised and production-ready machine learning / predictive models
- Training material and documentation for internal teams

Service approach





Client inputs and contributions

- Access to datasets, data owners, and system documentation
- Information about existing technology and architecture
- Details of business goals, challenges, and change plans
- Stakeholder availability for discovery workshops and sprint reviews
- Engagement in requirement refinement and solution validation processes
- Support for integration and testing phases

Service management and support

We aspire to total customer satisfaction, so as part of our standard service provision, key stakeholders will receive dedicated support from an 'Accountable Executive' and the assigned 'Project Lead'.

Standard support is provided remotely (via email) and is available during standard UK working hours (Monday to Friday 0900-1700).

By prior arrangement, we can provide support for critical deadlines, system maintenance, or other project activities outside standard working hours remotely, or on site (at extra cost).

All support emails received during standard UK working hours will be acknowledged and triaged (or resolved) within 4 working hours.

Complex issues requiring longer than 4 working hours to resolve, will be assigned to the Project Lead who will liaise with stakeholders to classify and prioritise issues as appropriate.

Service standards

Butterfly Data operates according to a structured framework that ensures consistent service quality:

- Incremental development through Agile delivery with regular client feedback
- Adherence to DAMA-DMBOK best practices, B-Corp ethical standards, and UK Government Functional Standards including Technology Code of Practice (TCOP), Government Service Standard, Government Functional Standards and Data Ethics Framework
- Consultants are authentic, collaborative, innovative, and proactive, consistently demonstrating autonomy, influence, expertise, and commerciality
- Built-in compliance with GDPR, Secure Record Handling, Official Secrets Act, Computer Misuse Act and other regulatory requirements



[Section 3: How we have helped]

Examples of relevant experience

> Case studies



Using SAS Viya to drive data quality and efficiency for HMRC

We delivered a scalable, on-cloud Data Quality (DQ) Framework for HMRC using SAS Viya, which addressed the need for objective, repeatable data quality assessments from 25 major Head of Duty sources across 4 different data systems. The framework included configurable DQ rules, highly visual dashboards, and quantifiable metrics, enabling our client to monitor 6.8 billion data values, reduce tax gap risk, and support GDPR compliance. By migrating to Viya, data processing times for large datasets were cut from 8 hours to under 30 minutes, significantly improving efficiency.

The project overcame early security and access challenges by using synthetic data and leading key assurance processes. It delivered a future-proofed solution that continues to drive better decision-making, cost savings, and enhanced data governance. The work was recognised across HMRC and showcased at Civil Service Live 2022 as a model for successful data transformation.

[About Butterfly Data]

Make **every** decision data-driven

We empower organisations with agile data management and analysis services that transform complex data ecosystems into strategic capabilities with competitive results.

Get in touch

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