



G-Cloud 14 Data Management Service Definition

Butterfly Projects Limited, Trading as 'Butterfly Data'
Company Registration No: 04952566 - VAT Registration No: 850986489
253 Cowbridge Road West, Cardiff, Wales, CF5 5TD
E: info@butterflydata.co.uk W: www.butterflydata.co.uk

Data Management

Data Management is an overarching term that describes the various disciplines, principles and practices of managing the data lifecycle, from acquisition, through exploitation and ultimately disposal.

The field of data is increasingly complex, and organisations need support to integrate tools and services using cost-effective approaches.

Butterfly's Data Management service offers organisations holistic Cloud support, consolidating our experience using various Cloud platforms and enterprise tools, to deliver flexible end-to-end data management support, including data maturity assessments, cloud adoption, data governance, data engineering, data quality, data transformation, data privacy, data analytics, data visualisation, and data science.

Features

- Amazon Web Services (AWS), Microsoft Azure, Google's Cloud Platform (GCP)
- Data Governance (SAS, Informatica Axon, Metadata, Data Models & Catalogs)
- Data Integration and ETL Pipelines (Denodo, Git, CI CD, DevOps)
- Data Quality (SAS Viya, QKB, Loqate, Dataflux Data Management Studio, Great-expectations)
- SAS (Viya, Visual Analytics, Visual Investigator, Intelligent Decisioning) specialist partners
- Data Science skills (SAS, SQL, Python, R, Hadoop, SPARK, Hive)
- Data Visualisation (SAS Visual Analytics, Tableau, PowerBi, Plotly Dash, Apache Superset)
- Entity resolution & risking (individual and address matching).
- Data Privacy (minimisation, synthesisation, tokenisation and masking).
- DAMA, GDPR, ISO and UK National Data Strategy alignment

Benefits

- Data-driven decision-making using trusted, measurable data quality, aligned with standards.
- Advanced analytical capabilities supporting timely, accurate data insights
- Cost efficient, scalable and flexible data operations.
- Unified data silos supporting a consolidated, single customer account view.
- Successful data strategies, improved data literacy and continuous improvement.
- Accelerated digital transformation, automating processes and removing systemic weakness.
- Enhanced public service delivery, empowering staff with reliable information.
- Consolidation of legacy systems, and removal of technical debt.

- Quantitative, measurable metrics (KPIs, Critical Success Factors).
- SC & DV cleared consultants with Agile working practice.

Services Overview

Understanding and navigating the complexities of using data and technology to support digital transformation can be challenging. Buyers are not always able to determine what data service they require to overcome their unique obstacles, and achieve their vision.

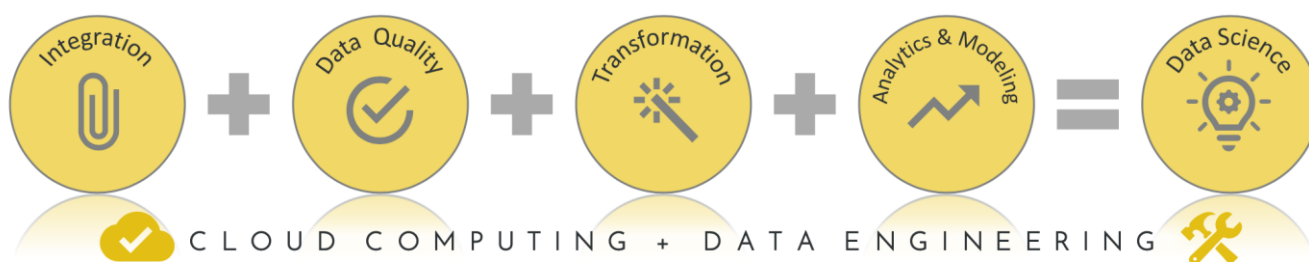
Butterfly provides a comprehensive range of complementary data management services, which can be combined to create a tailored service which meets your unique requirements.

Data Management Services:

- Data Maturity Assessments
- Cloud Adoption Support
- Data Governance
- Data Engineering
- Data Integration
- Data Quality
- Data Transformation
- Data Privacy
- Data Science & Analytics
- Data Visualisation
- Data & Model Migration

Specialist Data Services:

- SAS on Cloud



Service Framework

All of our services are underpinned by our common service framework, which underpins continuous service improvement, covering aspects such as:

- **Roles & Responsibilities** in the provision of our services.
- **Discovery of deliverables, desired architecture characteristics, risks and opportunities.**
- **Delivery Approach** with Agile over several *Phases*, using popular collaboration tools.
- **Standards** which underpin our capabilities, culture and services.
- **Support & Maintenance** for the ongoing provision of live services.
- **Training & User Support** to maximise the benefits of data services and tools.

Roles and Responsibilities

Butterfly can provide a fully independent, self-managing team, who will collaborate with stakeholders and representatives to understand and deliver the requirements. This team will typically comprise of a blend of **management** and **delivery** roles, adjusted to meet client needs and budgets as required, as follows:

Accountable Executive (AE)

The Accountable Executive is accountable for the overall success and delivery of the engagement, ensuring that the solution meets the requirements, and stepping in to support delivery as required, including:

- Building strong, collaborative relationships with stakeholders.
- Overall vision, governance, quality assurance, and service standards.
- Risk management (including issues & assumptions).
- Handling escalation of issues and/or concerns.
- Contract & finance management, timesheets, and invoicing.

Delivery Lead (DL)

The Delivery Lead provides the interface between the Butterfly team and the client project stakeholders, responsible for:

- Ensuring the Butterfly team is working effectively in an Agile manner.
- Aligning resources, focusing efforts, and removing obstacles.
- Planning, monitoring and reporting delivery progress.
- Coordinating efforts across responsible, interdependent teams.
- Clarifying requirements, and knowledge management (corporate memory).

Technical Lead (TL)

The Technical Lead provides the interface between the Butterfly team and the client technical community. Multi-skilled in business analysis, project management, and solution architecture, they will be responsible for:

- Ensuring that the requirements are met by the deliverables.
- Overcoming and managing technical challenges.
- Implementing a capable architecture, via prototypes and evolution.
- Mediating trade-offs in architecture characteristics (non-functional requirements).
- Providing development teams with relevant context and understanding.

Design Lead (UL)

Provides the interface between the Butterfly team and the client user community, ensuring that user requirements, experience and feedback are properly reflected in the deliverables.

- Understanding user capabilities and needs, and establishing feedback loops.
- Capturing domain knowledge from Subject Matter Experts (SMEs).
- Designing user interfaces (UI) and experiences (UX), which are accessible and usable.
- Improving and advocating for enhanced data literacy.

Data Analysts (DA)

Data Analysts provide the interface between the Butterfly team and the client stakeholders, capturing domain knowledge to support the use of data to obtain useful insights. Their responsibilities include:

- Analysing business needs, and translating them into functional specifications.
- Facilitating communication to ensure that proposed solutions meet business needs.
- Enhancing business processes through analysis and improvement initiatives.
- Exploring data sources to identify and explore any utility/issues.
- Collaborating with engineers/scientists to improve solutions and metric accuracy.
- Generating reports and visualisations that reveal patterns, insights, and trends.

Data Engineers (DE)

Data Engineers design the architecture and construct data frameworks which support data science and analysis, including:

- Data pipelines which transform and standardise data from disparate sources.
- Data structures, algorithms/models (coding) and performance optimisation.
- Developing and optimising data structures, algorithms, and models
- Testing and managing deployment processes, and overseeing release operations.

Data Scientists (DS)

Data Scientists are responsible for testing hypotheses and building explainable models which optimise for specific outcomes, including:

- Utilising statistical analysis and machine learning techniques to analyse complex datasets and predict future trends.
- Creating and validating predictive models that support decision-making processes.
- Collaborating with cross-functional teams to translate data insights into actionable business strategies.

Discovery

Most projects begin with a 'discovery' phase to deepen understanding of challenges and refine the delivery plan.

Butterfly's planning approach builds on the trusted [CRISP-DM](#) methodology, to obtain a comprehensive view of requirements, by:

- **Defining** your objectives, capabilities, and refining your business case
- **Assessing** the challenge, identifying needs, dependencies, and options
- **Preparing** for change, engaging users, and managing stakeholders
- **Developing** effective solutions, proof of concepts, and viable products
- **Evaluating** options for optimal suitability and effectiveness
- **Deploying** change efficiently, migrating data and models
- **Monitoring** results and decommissioning legacy solutions

We are practised in the **Agile** project delivery methodology, and recognise the need to balance value and control with flexibility, without compromising on our Service Standards.

The discovery process determines the details required for the deliverables, including:

- **Deliverable Types** (such as datasets, models, reports), each having unique properties, risks, assumptions and dependencies.
- **Acceptance Criteria** and/or appropriate metrics which are expected to be met.
- **Architecture Characteristics** (or non-functional requirements) which weigh-up the tradeoffs between performance, availability, security, portability, etc.

Setup, Migration, and Delivery

For many years, Butterfly has been trusted to handle highly sensitive data for major UK Government departments (including HMRC, DWP, FCDO, Home Office). Our service builds on our extensive experience of working with sensitive data, models, and processes on both legacy and modern cloud platforms such as Amazon Web Services (AWS), Microsoft Azure or Google's Cloud Platform (GCP).

We offer tailorable support to effectively navigate the challenges associated with transitioning services to the Cloud and between cloud service providers, and have supported many clients with inflexible legacy systems to achieve scalable, commodity infrastructure, using cloud-first, open-source (and proprietary) technologies.

Our migration plan identifies and mitigates the risks associated with decoupling legacy systems, proposes appropriate solutions, assists with architecture design, infrastructure choices, and environmental configuration.

Handover and Training

As part of our engagement we always seek to transfer knowledge and experience to our clients' teams as a means of developing their capability and promoting industry best practices.

We are able to tailor training to meet specific needs when requested, particularly where specialist tools and practices are involved.

We can produce content in a variety of formats (such as courses, videos, or presentations), which can be delivered via one-to-one sessions or workshops, on-site or at suitable venues.

Ultimately, we want to ensure that our clients are able to realise the benefits of the services and tools they have invested in. Subsequently, most engagements require some form of coaching or training, such as:

Project team training:

We encourage our employees to share their knowledge and experience with other project team members (through peer support and on-the-job mentoring), to ensure best practices are learned and the best outcomes are achieved.

Stakeholder training:

We find it is often necessary to impart some specialist knowledge and skills on our stakeholders, to facilitate better understanding of our services, adopt common terminology and avoid any miscommunication.

End-user training:

We have experience developing and delivering bespoke training content to facilitate user adoption of new analytical tools and platforms (such as SAS Viya). We like to trailblaze new solutions, identifying and ironing out issues, and detailing any configuration requirements or onboarding procedures to enhance the users' first impressions.

Support & Maintenance

In addition to the development and implementation of our consultancy-led services, we can provide ongoing support and maintenance of new and existing services.

Butterfly Data has Security Cleared consultants and developers deployed in multiple projects across several Public Sector clients, and we can recruit and train to flexibly support and cover specialist data management resource needs, such as:

- SAS & Linux Administrators
- SAS, R & Python Developers
- Data Analysts & Data Scientists
- Agile Project Managers
- Cloud Solution Architects
- Business & Test Analysts.

We can provision support for a range of data management services and ongoing project activities, including:

- **Consultancy:** Feasibility Studies, Business Processing Modelling, Strategy and Execution
- **Development:** Requirements Specification, Logical Data Modelling, Interface Design, Functional Specification, Bespoke Tools, Prototyping, Code Review
- **Provisioning:** Cloud Architecture Design, Cloud Infrastructure as a Service, Migration Strategies, Tool Selection, Data & Model Migration
- **Training:** Training Strategies, Learning Pathways, Training Delivery

Support Levels

We aspire to total customer satisfaction, and therefore, as part of our standard service provision, key stakeholders will receive dedicated support from our '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:

CRITICAL issues, affecting the integrity or availability of the service, are our top priority and will be resolved at the earliest point possible.

MAJOR issues, which mildly affect either the entire user community or affect a few users severely, will be investigated and resolved after any critical issues.

MINOR issues, where few users are substantially affected, will be investigated and resolved after any major issues.

INFORMATION requests (no user or service impacts) will be provided when other issues have been resolved, or priorities allow.

Our triage system is vital to providing immediate support in critical situations, allocating resources efficiently, and answering any queries in a timely manner.

Service Standards

Above all, we hold ourselves accountable to our **company values** as individuals, and collectively for our clients.

We carefully manage our team to create a culture that our clients' consistently say sets us apart from other consultancies that they work with, ensuring that Butterfly consultants are:

- **Themselves:** Embrace and express their authentic self confidently and freely.
- **Team Players:** Cooperative, putting the team's success above individual goals.
- **Passionate:** Driven by enthusiasm, constantly striving for excellence in every task.
- **Engaged:** Fully present and committed, contributing positively at all times.
- **Innovative:** Always seeking creative solutions and pioneering new ideas.
- **Collaborative:** Working together, leveraging diverse perspectives for shared goals.
- **Encouraging:** Supporting others to grow, succeed and exceed their own expectations.
- **Constructive:** Offering valuable feedback that motivates improvement.
- **Proactive:** Anticipating needs and acting in advance to address challenges.

Furthermore, all our consultants are expected to demonstrate levels of competency defined by our "Grade Expectations", which outlines behaviours such as:

- **Autonomy:** managing time and tasks without needing constant supervision.
- **Influence:** sway opinions, guide outcomes, and lead initiatives across teams.
- **Innovation:** Continuously challenge the status quo and introduce ideas.
- **Knowledge:** Possess deep expertise in relevant fields, staying updated with trends.
- **Business:** Have commercial awareness, and ensuring client satisfaction.

The Data Management Association



DAMA is a global association of technical and business professionals dedicated to advancing the concepts and practices of information and data management.

As members of DAMA, we align ourselves with the aims and practices set out in the [Data Management Body of Knowledge \(DMBoK\)](#) which is considered the definitive guide for data management and has set industry standards for best practices in the field.

B-Corporation

Certified



This company meets high standards of social and environmental impact.

Corporation

As a [certified B-Corp company](#), we strive to ensure that what we do delivers value balanced across commercial, social and environmental considerations, ensuring we are committed to improving the outlook for [future generations](#).

B-Corp sets out a set of [Development and Governance Standards](#) which guide our decision making.

UK Government Standards & Guidelines

Additionally, we align ourselves with various standards and guidelines for working in the Public Sector, including:

- [Technology Code of Practice \(TCOP\)](#)
- [Government Service Standard](#)
- [Government Functional Standards](#)
- [Data Ethics Framework](#)

Skills & Competencies

We also align ourselves with trusted frameworks for ensuring our team have appropriate skills and knowledge to deliver high quality work, including:

- [Skills Framework for the Information Age \(SFIA\)](#)
- [Government Digital and Data Profession Capability Framework \(DDaT\)](#)

Notable roles include:

- [Data architect](#)
- [Data analyst](#)
- [Data engineer](#)
- [Data scientist](#)
- [Data governance manager](#)
- [Data ethicist](#)

- [Software developer](#)
- [Business analyst](#)
- [Delivery manager](#)
- [Solution architect](#)

About Us

Who? **Data Specialists**

Butterfly Data is a team of experienced technology consultants specialising in data science and data management. We help organisations achieve data-driven results, through digital transformation using cloud services.

Why? **Informed, Transparent, Accountable Decisions**

Data-driven decisions have the potential to enhance many aspects of our lives:

- Revealing hidden value and insights
- Creating streamlined, efficient processes
- Producing accurate models and predictions
- Improving customer and employee engagement
- Strengthening companies, governments, and economies
- Improving decision transparency and accountability
- Delivering positive and enduring social outcomes
- Solving complex, global challenges

What? **Transformational Insights**

We offer a comprehensive technology service specialising in data science and data management disciplines, helping our clients realise the value of their data.

How? **Quality & Mastery with Technology**

Our team has a breadth and depth of hands-on experience at all stages of the information management lifecycle allowing us to:

- Provide a tailored service to meet your needs and deliver integrated solutions
- Blend domain knowledge, business analysis, and data science
- Propose realistic solutions, manage expectations, and communicate clearly

Where? **Part of your team**

We have experience in multiple sectors (including Government, Finance, Defence, and Retail) and we have supported organisations of all sizes from large corporates to SMEs and start-ups.

We are based in South Wales, with clients throughout the United Kingdom, currently exploring expansion of our operations into the Americas and Europe.

Our Approach

Butterfly Data has a proven track record in helping our clients understand their data, in order to extract maximum value from it efficiently and effectively.

We balance the needs of the users and the organisation, whilst placing your data at the core of our solutions.

Our ambition is to build relationships which position us as an SME you trust and can rely upon to support your data-led initiatives.

Flexible

We adapt to suit your needs, integrating with existing teams, supplying and scaling resources as required.

Agile

We align our development with your schedules, incorporating new and evolving requirements, designing iteratively, and keeping costs low.

Secure

Our consultants are vetted and trained to work securely and responsibly with your data and systems.

Bespoke

We tailor a service to meet your needs and deliver integrated solutions which complement your processes.

Holistic

Our team brings both breadth and depth of skill and experience, ensuring we deliver focused results.

Creative

We showcase prototypes which blend domain knowledge, business analysis, and data science to reveal new insights.

Value for Money

We believe that we offer excellent value for the services we provide. Our small teams and operational efficiencies mean that we keep our costs low, don't burden you with unnecessary bureaucracy, and focus on delivering results.

Onboarding - Our familiarity with data, processes, people, and creative solutions management means significantly reduced onboarding costs & timescales.

Familiarity - Butterfly's breadth of specialisms and experience across a number of sectors, means that we are well-placed to deliver work efficiently and cost-effectively. Our familiarity with a whole host of project scopes, has made our key learning process streamlined.

Knowledge - We will work collaboratively with your team to ensure that our knowledge is yours as well. This allows your team to acquire the vital skills required to provide ongoing development, expansions, maintenance, and refinement of data quality.

Experience - We fully understand the value that enhanced data quality delivers, and the practical improvement this facilitates in terms of maximising productivity and streamlining processes. The team will call upon the collective experience of Butterfly's consultants and their extensive contextual understanding from previous relevant projects, to promote valuable task insight. Through weekly team calls and quarterly gatherings, Butterfly staff discuss issues and share our knowledge and best practice.

Optimisation - Butterfly is keen to produce solutions which are future-proofed. Consequently, we look to implement work which is optimised to your current systems, whilst being geared towards prospective iterations. We will also work with the Data Engineering team to make improvements to the deployment pipeline to optimise for minor and major changes.

Costs - We will only bill for time we spend, and we will strive to complete delivery as fast as possible, such that it may not be necessary to spend the entire budget.

Trainees - In addition to the core development team, we often include a trainee developer to mitigate against key resource dependency risks, as well as providing both us and our clients with an opportunity to increase throughput cost-effectively.

Our Values

Our values underpin how we work with our clients and colleagues.

Integrity, Honesty and Fairness

- We do our utmost to serve our clients' needs, providing realistic expectations
- We won't up-sell, or over-promise; we simply do the best with what we have

Technological Mastery

- We blend technology and process to develop human-led intelligence
- We encourage innovative thinking, and continuous, lifelong learning
- We work with interesting data, to solve complex problems
- We have great enthusiasm for data-led solutions

Reliably Different

- We work openly with client teams and suppliers, embracing their cultures
- We behave professionally and flexibly, raising standards wherever possible
- We listen, using feedback to continually deliver a better service
- We proactively step outside our prescribed role if it helps to move things along

Security, Privacy and Transparency

- We understand that privacy is a sanctuary for trust and respect
- We stay one step ahead with our technical knowledge
- Our solutions are built to be secure-by-design

Working Together

- We invest in passionate, talented individuals who take pride in what they do
- We support, trust, and rely on each other to deliver on our promises
- We share our knowledge with our customers as well as each other

Making a Difference

- We take on projects which serve the best interests of society
- We strive to make our industry inclusive, fair and respectful

Social Value Response

Tackling Economic Inequality

Butterfly Data was born in 2003 but took flight in 2017. By 2021, we were a 15-Butterfly team that adopted the Employee Owned Trust (EOT) business model, giving every current and future Butterfly a stake in the company. In 2023, we became one of the 1,500 UK B-Corps. Now we have 30 people from 5+ countries. Our team is 17% veterans/reservists, 30% female (compared to the 19% average, Women in Tech Survey, 2023) and 22% ethnic minority (compared to 18%, The British Computer Society, 2020).

The ongoing growth of the company is leading to job creation across the country. Our 100% virtual configuration allows us great flexibility in recruitment. Butterfly Data are collaborating with a local University providing synthetic projects for students to work on; we take on summer internships, usually resulting in employment.

From the beginning, building a diverse team has been important, because we need data analysts and engineers with varied backgrounds, avoiding groupthink and implicit biases. As well as recruiting maths and computer science graduates, we have many people in second careers with backgrounds ranging from marketing, translation, teaching and mountaineering.

We have had work placements for veterans through the Amazon Re:Start scheme that have led to permanent positions as well as employment of injured veterans. This enables us to transfer our knowledge base, expertise and upskilling these individuals, addressing key skill gaps.

Butterfly has a Reservists Policy in place which allows an additional extra 10 days paid leave for training. A reservist staff member was mobilised for 6 months during the pandemic. We have been awarded the Gold Employer Recognition Scheme Award for our support to Defence.

In order to support and encourage employment for priority groups, our benefits package and Company Culture policy includes: flexible / part-time working arrangements for all roles from day 1 (25% of staff currently work part-time flexible hours), remote working arrangements for all staff, enhanced maternity pay (full pay for 6 months), private healthcare plan for all staff and their immediate family. We offer consistent remuneration across all (including support) staff, funded training arrangements including pay rises for key skills acquisition.

Fighting Climate Change

Butterfly Data is a sustainable company. We introduced a carbon reduction plan in 2020 and this year achieved BCorp certification, committing ourselves to run the company for

the benefit of all our stakeholders. As a largely virtual company our scope 1 and scope 2 CO2 emissions are zero and our small amount of scope 3 emissions are offset each year. As a team we have agreed to make a concerted effort to move towards greener living in all aspects of our lives. By supporting staff to work from home we naturally reduce carbon emissions from commuting and in addition we are planning to support staff to uptake green energy tariffs for their home. Where travel is required the preferred option is trains, with car-sharing encouraged for those occasions where trains are not suitable. We have signed up to Octopus EV scheme to help staff afford sustainable vehicles, and all company cars are electric vehicles.

Our services promote sustainable data practices that reduce the carbon footprint associated with data management. By optimising data storage solutions and streamlining data processes, we help public sector organisations minimise energy use and encourage the adoption of green technologies and methodologies in data handling.

Please refer to our Carbon Reduction plan found on our website:

<https://www.butterflydata.co.uk/climate-change>

Equal Opportunity

Our Corporate Social Responsibility policy promotes respect, inclusivity, professionalism, understanding, integrity, and transparency. Prioritising technological mastery, reliability, security, privacy, teamwork, fair pay, and societal impact. Committed to ethical business practices, zero tolerance for modern slavery or human trafficking. Employees are expected to uphold ethics and values, report any concerns, and work with suppliers to prevent exploitation. Our Data Maturity Assessment service helps to improve data management practices, we help create a more level playing field where diverse community sectors can gain better access to public services and information, thus increasing opportunities for innovation and economic participation across different community groups. We ensure that our Data Transformation practices include measures to promote equal opportunities within the workforce. By standardising data accessibility, we reduce disparities and enable a more inclusive work environment. Our training programs are designed to enhance skills across diverse groups, supporting workforce equality.

Wellbeing

At Butterfly Data, we have 3 qualified Mental Health First Aiders (MHFA) 1 female and 2 male representatives, we believe providing our employees with this additional support system encourages our staff to openly communicate any well being issues they may have to their 121 through our 121 mentor program or the additional option via qualified MHFA's.

Our commitment to mental health extends beyond words, as we actively promote work-life balance, we ensure it's not all work and no play as we organise regular events across the UK that bring the Butterflies together, challenging them socially by communal living and

physically by mountain climbs or canoe experiences, or celebrating successes through family days or weekends away. We cook for each other, help each other and laugh together which helps build a deeper bond and surface strengths outside the workplace.

Not only is our internal support systems in place we offer our employees private health care through Vitality, ensuring comprehensive coverage and access to a wide network of healthcare providers. With Vitality Health Insurance, our employees can take charge of their health, benefit from various wellness programs, and enjoy peace of mind knowing that their health needs are taken care of, we also have the additional mental health support package within our policy too. Promoting a supportive and compassionate work environment where individuals feel valued, understood, and empowered to prioritise their mental wellness.

Our Data Integration service enhances the management of health data, improving the accuracy and availability of important health information that supports public health initiatives and service delivery. Better data integration supports effective health monitoring and intervention strategies, which are crucial for community health and well-being.



BUTTERFLY
DATA

Whatever your data management challenge, we
want to help you overcome it!

Contact Us

hello@butterflydata.co.uk

Butterfly Projects Limited, Trading as 'Butterfly Data'
Company Registration No: 04952566 - VAT Registration No: 850986489
253 Cowbridge Road West, Cardiff, Wales, CF5 5TD
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