

Geospatial Data Services



BAE SYSTEMS

We are Techmodal

A collaborative data consultancy, bringing the capability and creativity you need to unlock the strategic potential in your data.

As Defence and Government experts, we understand the unique complexity of your constraints. Adaptive, imaginative and iterative, we meet you where you are – and start with what you have.

We focus on making more of your existing tools and technology. Applying smart thinking and continuous improvement to uncover the insight in your data – and help you move past your stickiest problems. Optimising your investments, operations and outcomes. Maximising the impact of your resources towards a better future.

Our clients operate in high-stakes, highly technical and highly secure environments. The pace is fast; the demands are complex and the cost of getting decisions wrong is high. They need partners who bring clarity, precision and practical expertise – not complexity for its own sake.

Our value comes from combining deep analytical strength, applied technology expertise and hands-on consulting experience. We turn ambiguity into clarity and insight into action.

What we offer

We operate at the cutting edge of digital innovation and at the heart of organisations that keep vital infrastructure running, national security protected, and armed forces prepared. Our teams provide:

Decision advantage

We give organisations the insight to act with clarity and pace, ensuring choices made today hold up under tomorrow's pressure.

Our strength comes from being data-led, operationally aware and grounded in real-world context. We explore options, test scenarios and highlight trade-offs before action is taken, building confidence in complex and high-consequence environments.

Technology that works

We help organisations unlock the full value of their technology and existing investments. Our solutions are shaped to our clients' environments – secure, scalable and designed for reuse – delivering faster outcomes and greater value for money.

We stay user-driven, not technology-driven, ensuring what we build is usable, dependable and impactful.

Delivery impact

We work shoulder-to-shoulder with clients to turn ambition into results. Our approach is collaborative, adaptive and focused on rapid progress.

We build momentum early, provide clear answers before the conversation moves on and ensure delivery stays aligned to purpose. Whether defining strategy or supporting implementation, we bring clarity, structure and practical leadership.

Strength in secure and complex environments

All our work is delivered by security-cleared teams who understand the realities of Defence, national security and critical infrastructure.

We design and assure solutions that are resilient, secure and governed — engineered to work in environments where constraints are real and reliability matters.

Powered by BAE Systems Digital Intelligence

We combine the pace, creativity and agility of a specialist consultancy with the depth, reach and security of BAE Systems.

Clients benefit from a unique blend of niche expertise and enterprise-scale capability, with seamless access to Digital Intelligence, engineering, cyber and equipment programmes when required.

Service Overview

Unlock the Power of Location with Techmodal's Geospatial Data Services

Techmodal's Geospatial Data Services provide comprehensive, end-to-end support across the entire project lifecycle - helping organisations enhance efficiency, strengthen decision-making, and innovate with confidence. We transform raw geographic data into clear, actionable insights that deliver measurable outcomes.

Our Services

Data Collection: We acquire high-quality data from a diverse range of sources, including satellite imagery, aerial photography, drone surveys, LiDAR, GPS field measurements, ground-based surveys, sensor networks, and authoritative open and official datasets. Our team ensures accuracy, coverage, and compliance from the outset.

Data Processing: We clean, validate, and structure data to guarantee reliability and usability. From ETL pipelines and metadata standards to rigorous quality assurance and governance, we prepare spatial datasets for robust analysis and safe reuse across your organisation.

Data Analysis: Through advanced GIS and spatial analytics, we uncover patterns, trends, and opportunities - supporting use cases such as demand forecasting, risk assessment, site selection, service coverage analysis, and operational optimisation.

Data Visualisation: We bring spatial data to life through interactive maps, dashboards, and compelling visualisations. Our user-centred design approach ensures complex information is presented clearly for analysts, decision-makers, and non-technical stakeholders alike.

Beyond these services, we deliver geographic products, bespoke web applications, and engaging story maps that communicate insights effectively and support informed action across your teams.

We provide comprehensive geospatial support that enables organisations to understand location-based challenges and opportunities - leading to better decisions, improved outcomes, and demonstrable value.

How We Work

1. Discovery and Requirements - Define objectives, outcomes, and constraints.
2. Data Audit and Preparation - Identify sources, assess quality, and establish governance.
3. Design and Build - Configure workflows, models, and visualisations aligned to your needs.
4. Validation and Assurance - Test for accuracy, performance, and usability.
5. Delivery and Enablement - Deploy outputs, train users, and embed best practice.
6. Support and Continuous Improvement - Monitor, iterate, and extend as needs evolve.

Service Features

- Spatial data collection and management
- Mapping and interactive visualisation
- Spatial and proximity analysis
- Network and route optimisation
- Geocoding and reverse geocoding
- Spatial statistics and pattern detection
- 3D terrain and surface modelling
- Remote sensing and image interpretation
- Workflow automation
- Integration with data science and machine learning

Service Benefits

- **Smarter Decisions:** Transform complex spatial data into actionable insights - supporting strategic planning, risk management, operational control, and policy development.
- **Efficiency Gains:** Reduce manual effort and duplication through automated workflows, streamlined data management, and reusable spatial assets.
- **Clarity and Communication:** Use intuitive maps and dashboards to align stakeholders, justify investment, and evidence impact with confidence.
- **Assured Quality and Governance:** Apply consistent standards for data quality, lineage, and security - supporting auditability and trusted reuse.
- **Technology-Neutral Approach:** We are tool-agnostic and tailor solutions to your environment, ensuring compatibility, sustainability, and value for money. Our team

are experts in leading GIS platforms, including ArcGIS Pro, MapInfo, and QGIS, enabling us to deliver solutions that leverage the best technology for your needs.

- **Sector Expertise:** Trusted across defence and security, infrastructure, utilities, transport, environmental monitoring, and public services - bringing domain knowledge that accelerates delivery and improves relevance.

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