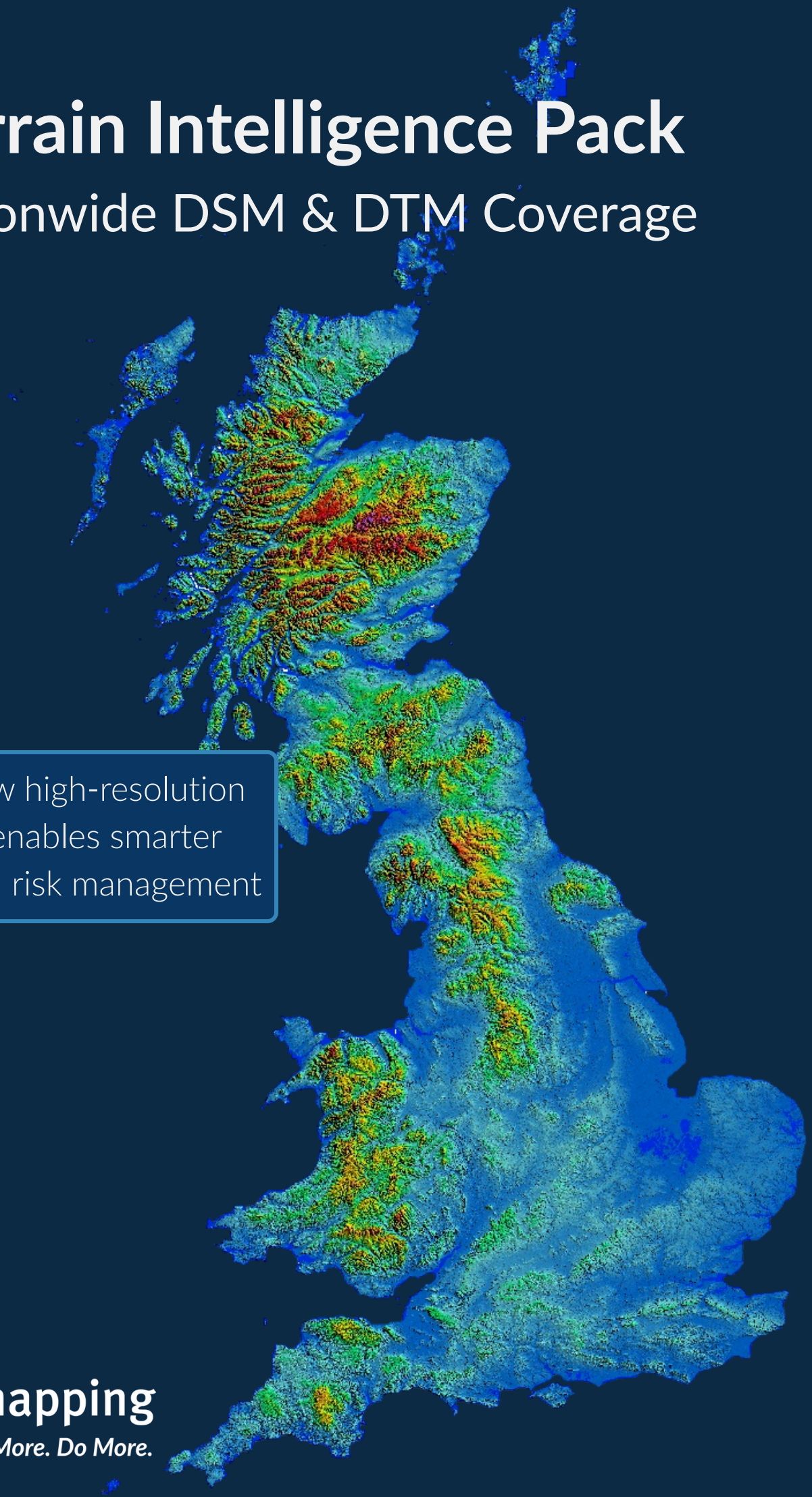
Terrain Intelligence Pack

Nationwide DSM & DTM Coverage



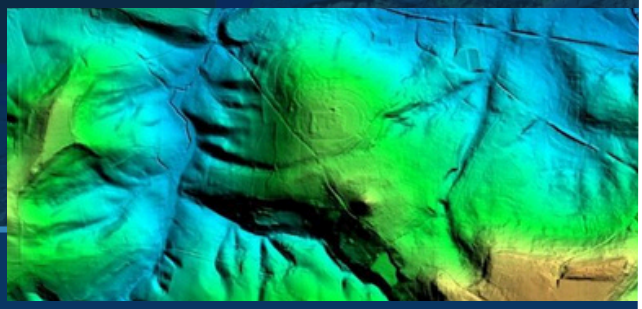
Discover how high-resolution height data enables smarter planning and risk management

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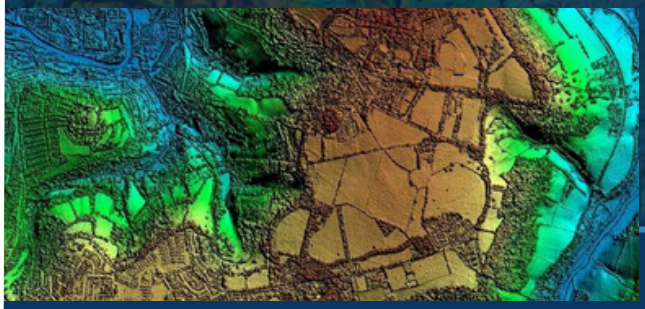
Height Data for Smarter Decisions

Accurate elevation data helps teams understand the terrain, assess risk, and plan with precision. DSM and DTM datasets provide the clarity needed to make informed decisions by revealing landform details, identifying above-ground features, and modelling bare-earth surfaces.



Digital Terrain Model (DTM)

A DTM reveals the bare earth surface by removing all objects, such as buildings and vegetation. It shows the true shape and natural contours of the land, providing a clear representation of the underlying terrain.



Digital Surface Model (DSM)

A DSM captures the visible surface of the environment, including buildings, trees, and other features. It represents the world as seen from above, showing how structures and natural elements form the complete surface.

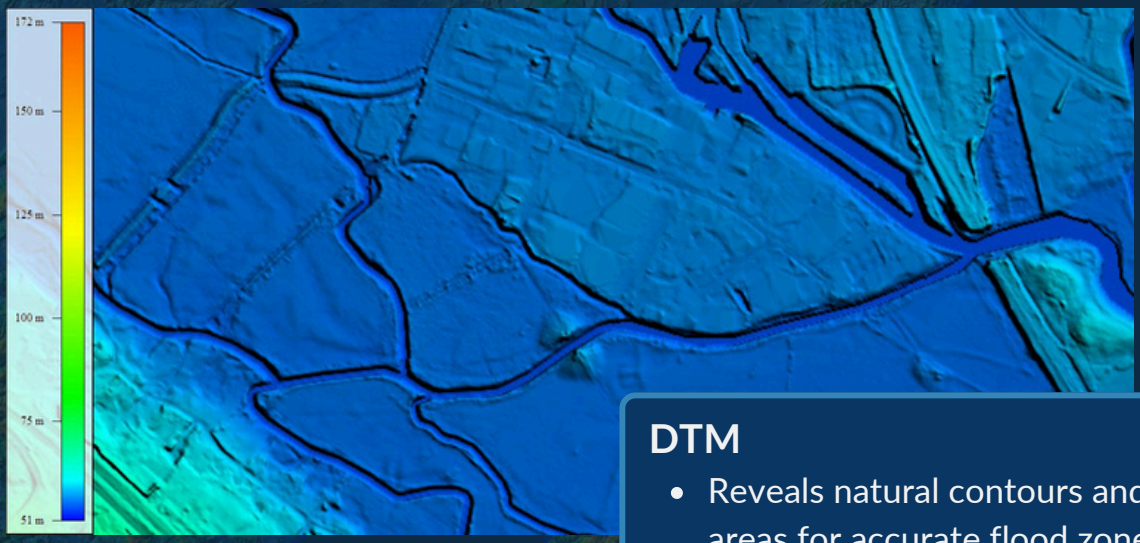
At Getmapping, we provide nationwide DSM and DTM coverage that turns complex terrain into clear, actionable insight. Our datasets are derived photogrammetrically from high-resolution aerial imagery, with capture resolutions as fine as 5cm in urban areas and national coverage at 2m DSM and 5m DTM, ensuring exceptional consistency and accuracy.

In this pack, you'll discover how height data transforms challenges into smarter planning and reduced risk, with practical applications including flood risk modelling, infrastructure design, renewable site selection, and claims validation. Discover how height intelligence can transform your next project.

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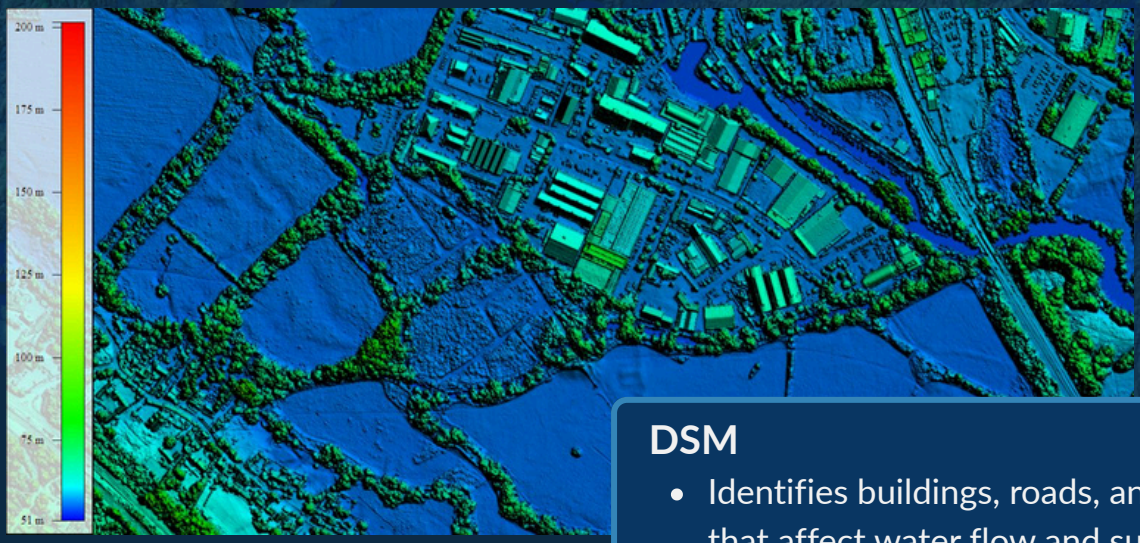
Flood Risk & Terrain Modelling

When storms hit or rivers swell, preparation is everything. High-resolution DSM and DTM data give insurers, utilities, and transport planners the insight to predict and mitigate risk before disaster strikes. By modelling flood zones, drainage paths, and terrain instability with high-resolution and highly accurate DSM and DTM datasets, you can score risk confidently and plan with precision to protect assets, communities, and reputations.



DTM

- Reveals natural contours and low-lying areas for accurate flood zone prediction
- Supports drainage planning and terrain stability analysis



DSM

- Identifies buildings, roads, and vegetation that affect water flow and surface runoff
- Helps model obstruction points and potential impact zones during flooding

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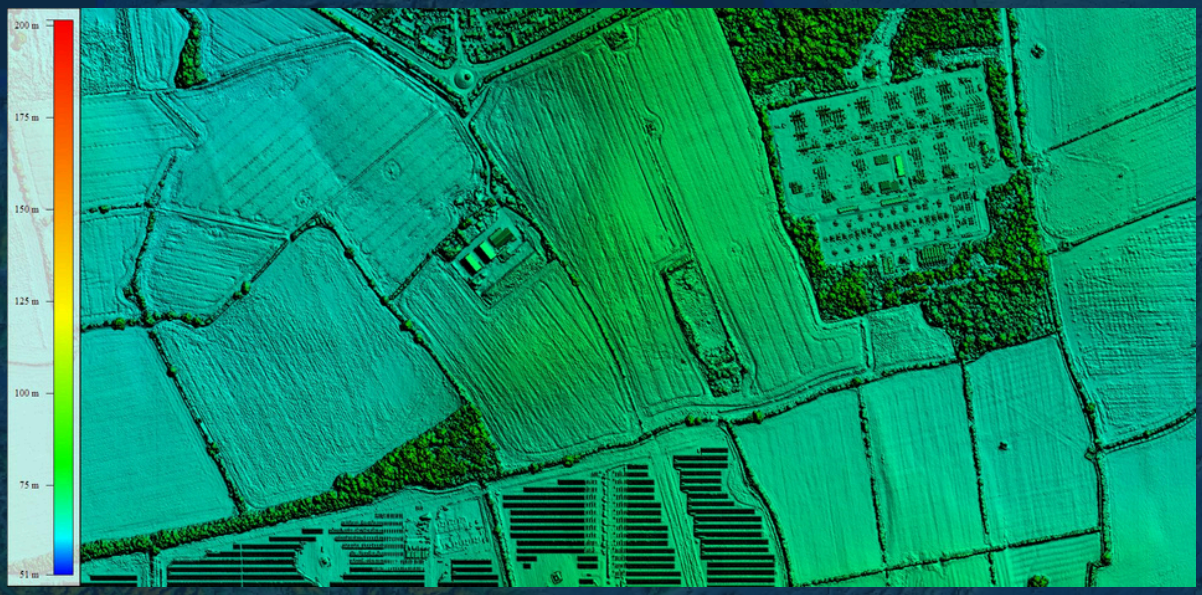
Renewable Site Selection

The future of energy depends on more than sunshine and wind, it depends on terrain. Fine-resolution DSM and DTM models empower renewable developers to choose optimal sites and manage them effectively over time. By analysing slope, exposure, and elevation, you can maximise output, maintain compliance, and monitor changes that impact performance. Precision terrain modelling accelerates the shift to clean energy while reducing risk and cost.

Highly accurate height data helps developers select sites with maximum exposure and minimal risk, while supporting long-term monitoring for compliance and performance.

In this DSM view, you can see the electric substation and the edge of a solar farm. This is critical for understanding surface features, shading, and infrastructure layout.

If you add a DTM layer, you can analyse slope and elevation to optimise panel placement, plan drainage, and reduce terrain-related risks. Together, these insights accelerate renewable site selection and management while maximising energy output.

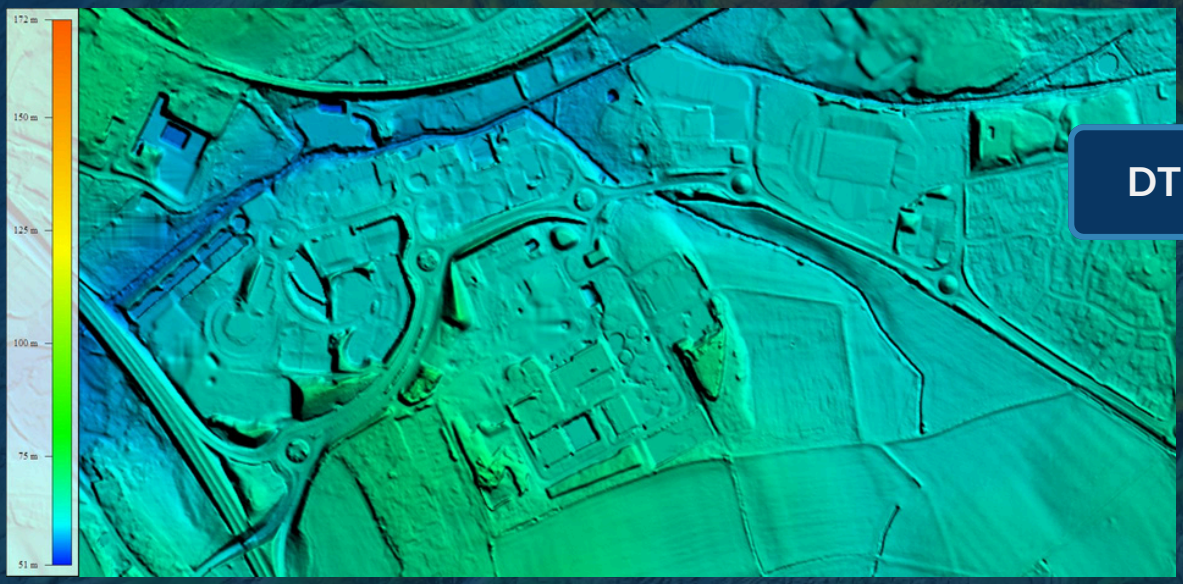


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Infrastructure Planning & Route Design

Every road, bridge, and rail line begins with a question: what does the land allow? High-fidelity DSM and DTM models reveal gradients, contours, and elevation changes that shape route design and grading analysis. DSM shows above-ground features like industrial buildings and water treatment works, critical for understanding obstacles, clearance, and urban integration. DTM strips these away to expose the true ground surface, enabling accurate slope calculations for foundations, drainage, and flood resilience. Together, they give engineers the clarity to plan routes that minimise earthworks, reduce risk, and optimise project outcomes.

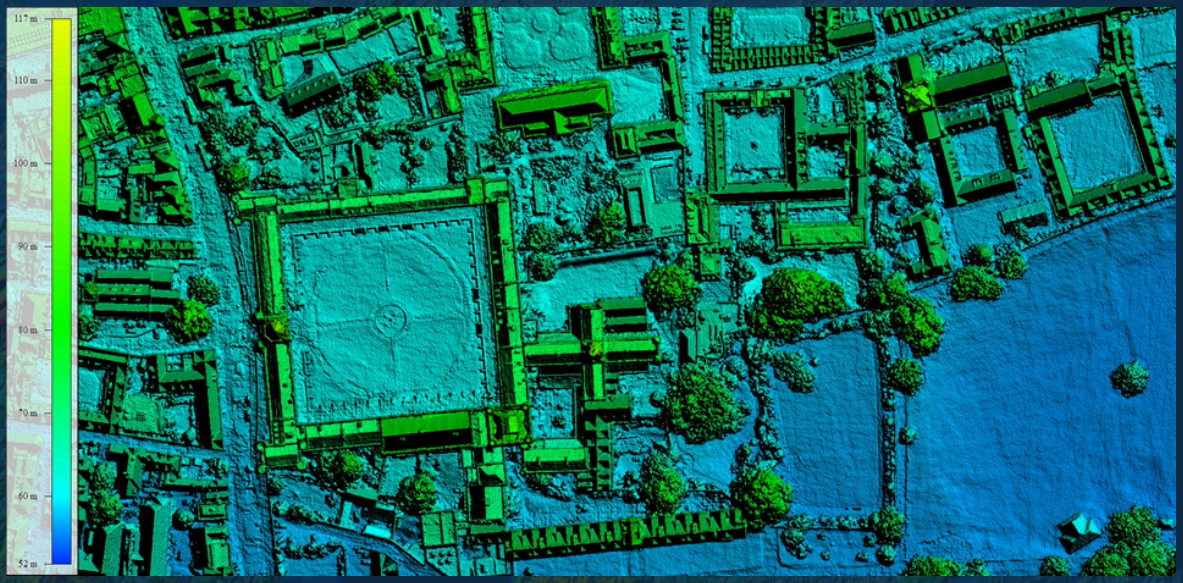




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Subsidence & Claims Validation

When the ground shifts, so do the stakes. Robust DSM and DTM datasets help insurance and engineering teams detect subtle elevation changes that signal subsidence or post-event damage. By comparing terrain over time, you can validate claims, support investigations, and make decisions backed by reliable data, turning uncertainty into clarity when it matters most. Our precision-driven approach reduces uncertainty, supports fair settlements, and strengthens catastrophe models, helping insurers and engineers make confident, data-driven decisions.



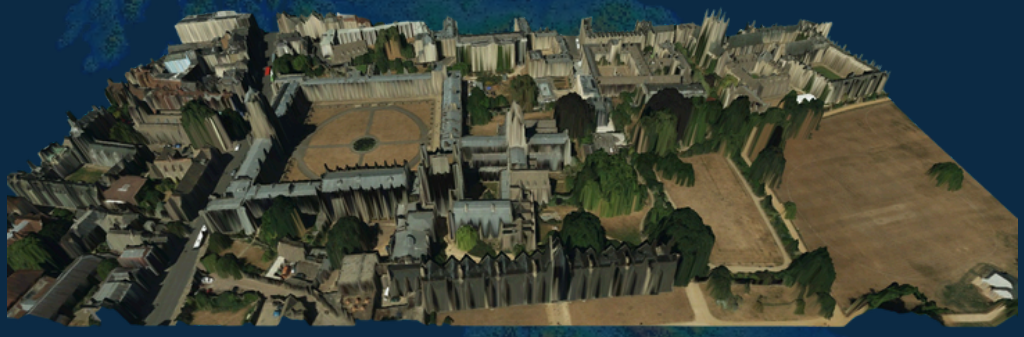
Height data transforms risk assessment. In this DSM view of Oxford college buildings, surface detail helps identify structural vulnerabilities and post-event changes. Adding a DTM layer reveals true ground levels, enabling accurate subsidence analysis and claims validation.

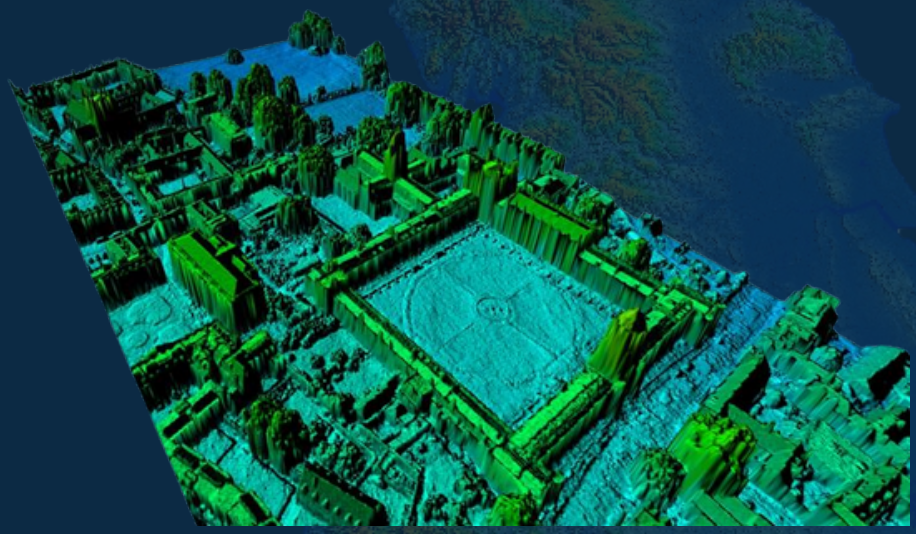
Detailed, photogrammetrically derived DSM and DTM data. This approach reduces uncertainty, supports fair settlements, and strengthens catastrophe models, helping insurers and engineers make confident, data-driven decisions.

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See Height Data in Action

At Getmapping, we deliver nationwide DSM and DTM coverage derived from our high-resolution aerial photography surveys. Our DSM reaches 5cm resolution with 10-15cm accuracy in urban areas, while national datasets offer 2m DSM and 5m DTM with 50cm RMSE accuracy. This level of detail is critical for precision-driven projects. Flexible viewing and delivery options make it easy to integrate height data into your workflows, whether you need downloadable formats or web-based access.





Ready to explore more?
Contact our specialists to discuss how height data can support your next project:

www.getmapping.co.uk/height-data

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