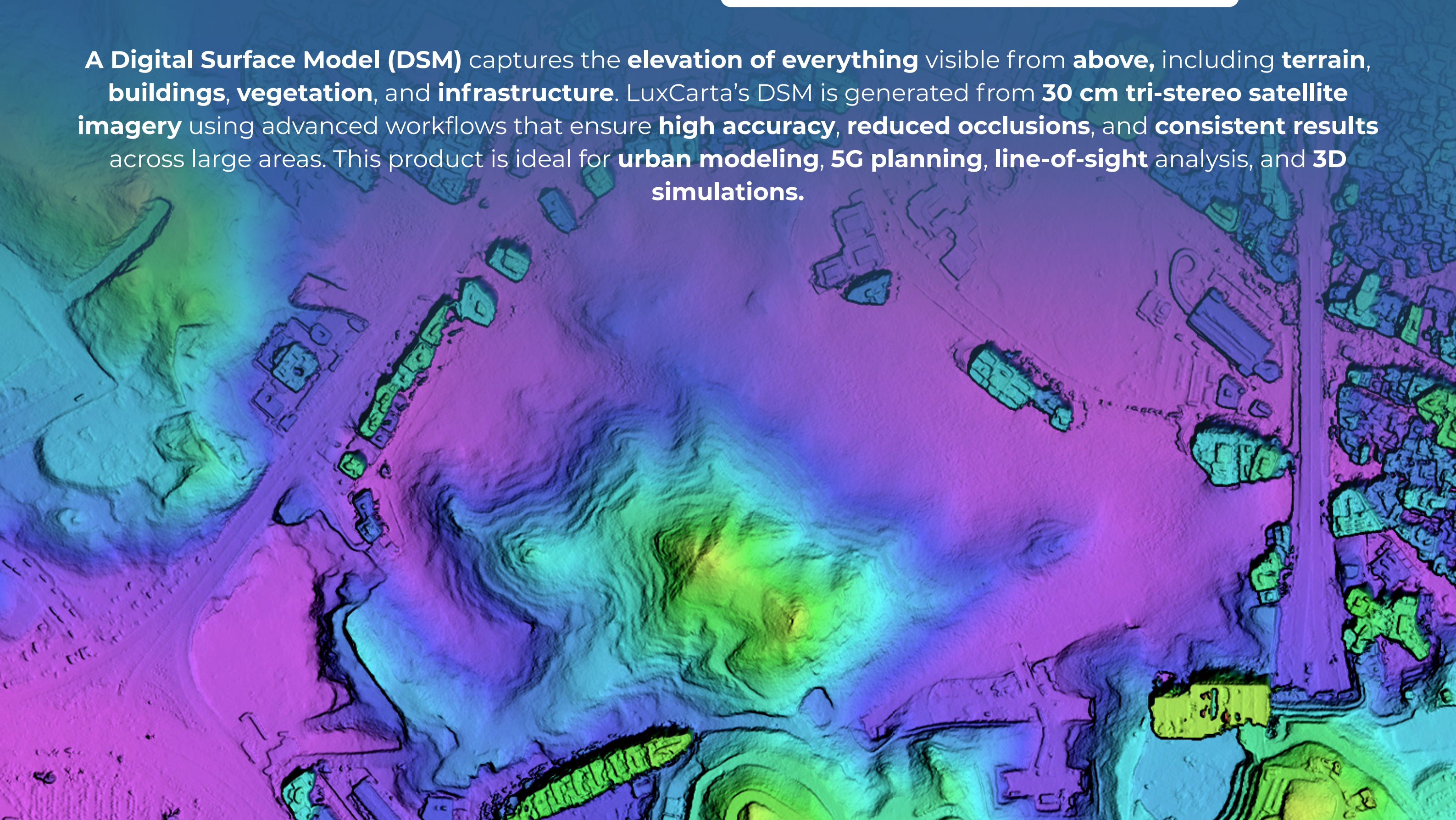




# LuxCarta

## Digital Surface Model

A **Digital Surface Model (DSM)** captures the **elevation of everything** visible from **above**, including **terrain, buildings, vegetation, and infrastructure**. LuxCarta's DSM is generated from **30 cm tri-stereo satellite imagery** using advanced workflows that ensure **high accuracy, reduced occlusions, and consistent results** across large areas. This product is ideal for **urban modeling, 5G planning, line-of-sight analysis, and 3D simulations**.



## Key Benefits

### Comprehensive Surface Representation

Captures the full landscape, including terrain, buildings, and vegetation, for detailed and realistic 3D models.

### Reduced Occlusions for Accuracy

The tri-stereo configuration minimizes blind spots by up to 40% compared to standard stereo, improving model completeness.

### Water Surfaces

Large lakes, rivers, and oceans are flattened to remove wave artifacts, improving surface consistency for analysis and visualization.

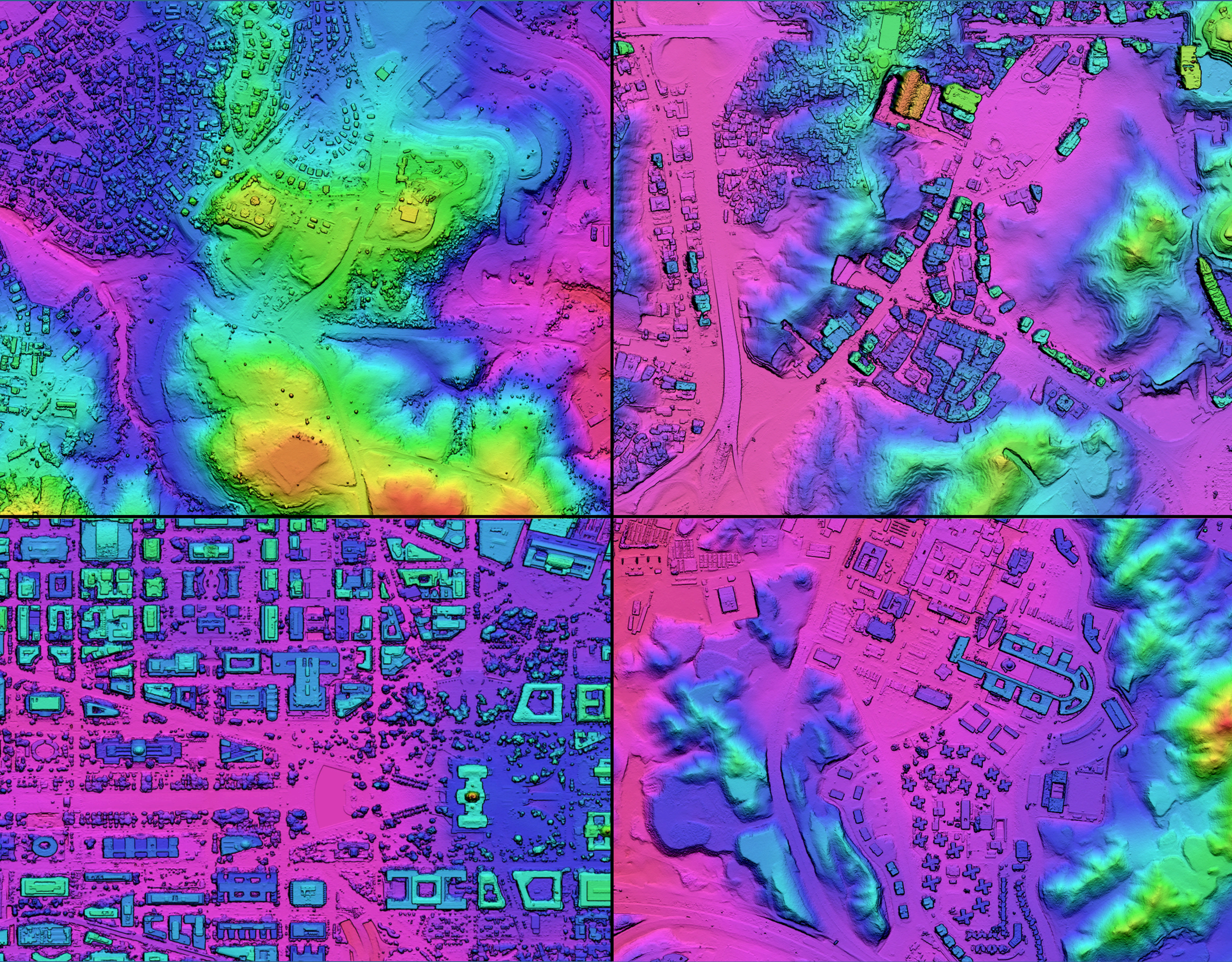
### Seamless Integration with GIS Platforms

Delivered in high-resolution formats, DSM integrates smoothly into all major GIS, CAD, and simulation workflows.

## Why choose DSM?

LuxCarta's DSM provides an unparalleled **level of surface detail**, enabling planners, engineers, and analysts to model urban environments, simulate telecom networks, and visualize landscapes with greater confidence.





*High-resolution Digital Surface Model for terrain, vegetation & infrastructure mapping*

## Formats

### Inputs:

30 cm Tri-Stereo imagery  
Minimum 5 Ground Control Points (GCPs) per stereo-pair (recommended)

### Outputs:

**Format** : GeoTIFF (32-bit float)  
**Projection & Datum** : UTM, WGS84 (horizontal),  
EGM2008 (vertical), metric  
**Water Treatment: Lakes & seas flattened,  
rivers hydrologically adjusted**

## Technical Specs

- **Area Coverage:** Custom AOI (XXX sq. km)
- **Grid Spacing:** 0.3 m
- **Accuracy with GCPs:** <0.1 m RMSE
- **Accuracy without GCPs:** ~<1 m RMSE
- **Delivery Schedule:** ~4 weeks from order confirmation (subject to AOI size)

Looking to improve the speed and accuracy of your derived geospatial data?

Contact us today for a personalized demo: [sales@luxcarta.com](mailto:sales@luxcarta.com) | [www.luxcarta.com](http://www.luxcarta.com)



**Digital Terrain Model is powered by LuxCarta, one of the world's leading map data companies.**

DSM is LuxCarta's automated solution for generating detailed Digital Surface Models.

It provides precise elevation data that captures terrain, vegetation, buildings, and infrastructure with exceptional accuracy. Designed for urban modeling, 3D simulations, line-of-sight analysis, and telecom planning, DSM delivers standardized, ready-to-use datasets to support your projects.