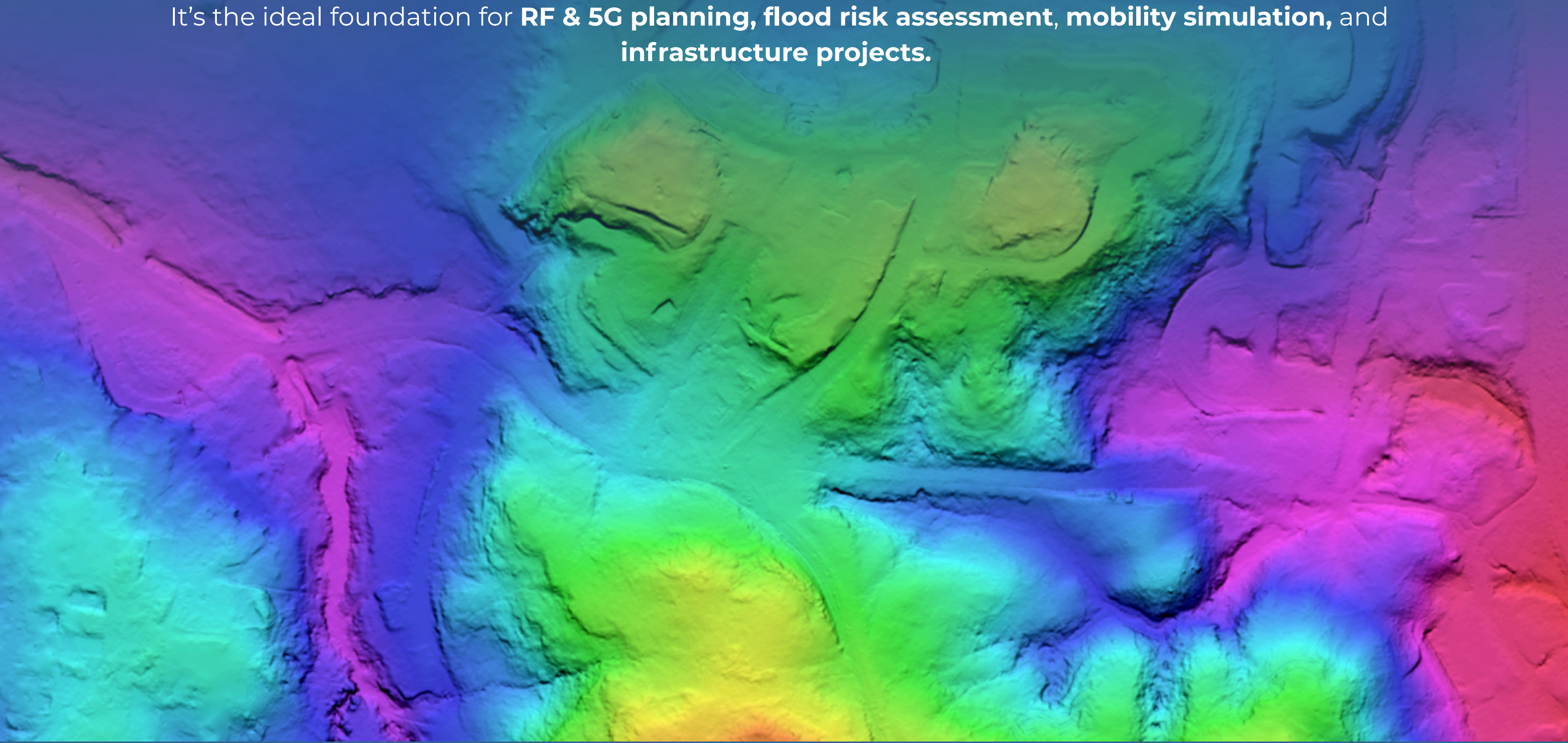# LuxCarta

Digital Terrain Model

A Digital Terrain Model (DTM) delivers a **true representation** of the Earth's surface with **all vegetation** and **man-made objects removed**. Using **30 cm tri-stereo** satellite imagery and LuxCarta's **advanced workflows**, the DTM provides **clean, terrain-only elevation** data for precise **modeling and analysis**. It's the ideal foundation for **RF & 5G planning, flood risk assessment**, **mobility simulation,** and **infrastructure projects.**

Key Benefits

Clean & reliable terrain surface

DTM delivers an accurate, vegetation-free and object-free representation of the Earth's surface, serving as a solid foundation for any geospatial project.

Supports Precision Modeling & Simulation

Ideal for advanced applications such as RF & 5G network planning, flood risk assessment, mobility studies, and infrastructure design, ensuring realistic and reliable outputs.

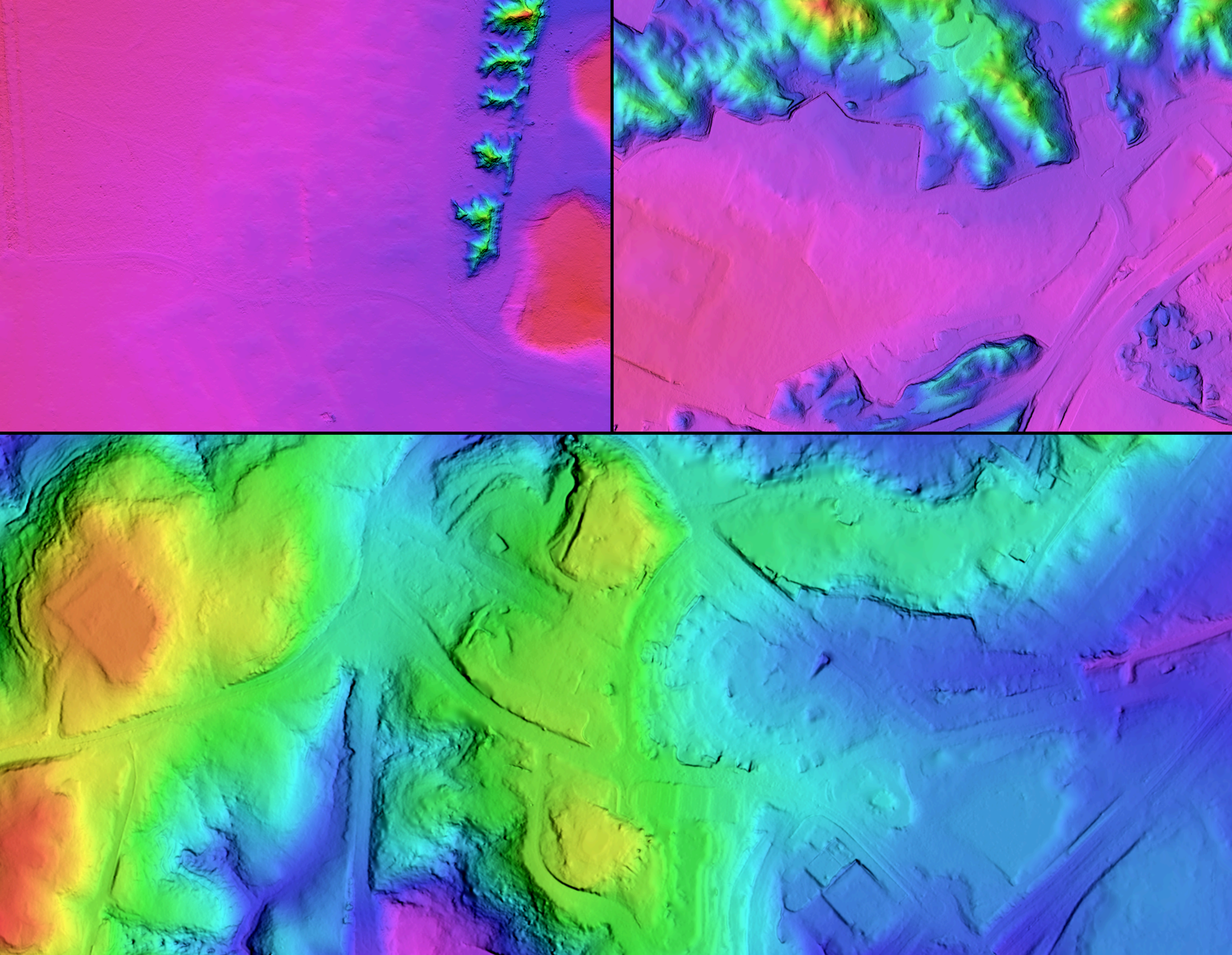### Consistent Global Methodology

Produced with the same workflows and standards worldwide, DTM guarantees uniform quality and results regardless of the region of interest.

Water Surfaces

Seas, lakes, and large rivers are flattened for consistency. Major rivers and streams are adjusted to ensure accurate downstream flow direction.

Why choose DTM?

LuxCarta's DTM provides a **precise** and **obstruction-free view** of the Earth's surface, enabling planners, engineers, and analysts to build **accurate models**, **simulate real-world conditions**, and **plan networks** or **infrastructure** with **greater confidence.**

High-accuracy bare-earth elevation model for telecom, simulation, and planning

Formats

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

Outputs:
Format: GeoTIFF (32-bit float)
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)
- **Projection & Datum** : UTM, WGS84 (horizontal), EGM2008 (vertical), metric

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

Contact us today for a personalized demo: sales@luxcarta.com | www.luxcarta.com

LuxCarta

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

DTM is LuxCarta's advanced solution for generating accurate Digital Terrain Models.
It provides clean elevation data by removing vegetation, buildings, and infrastructure to reveal the true ground surface. Designed for urban modeling, 3D simulations, RF and 5G planning, and line-of-sight analysis, DTM delivers standardized, ready-to-use datasets to support your projects.