Geo-Intelligence

GEO Elevation

Elevation Data
Global to Local

AIRBUS
DEFENCE & SPACE

The Right Elevation Model for Every Project Need

GEO Elevation in Brief

The GEO Elevation product suite offers the most comprehensive elevation data range, providing highly accurate information anywhere in the World, independent of relief and weather conditions.

- Elevation data matched to individual business need: large-area coverage for large-scale projects vs. high level of accuracy for local coverage
- Rapid on-demand delivery of high precision elevation data anywhere in the world
- All products framed to individual Area of Interest with optimised pricing per km^2
- Based on spaceborne optical and radar technologies

Worldwide Elevation Data

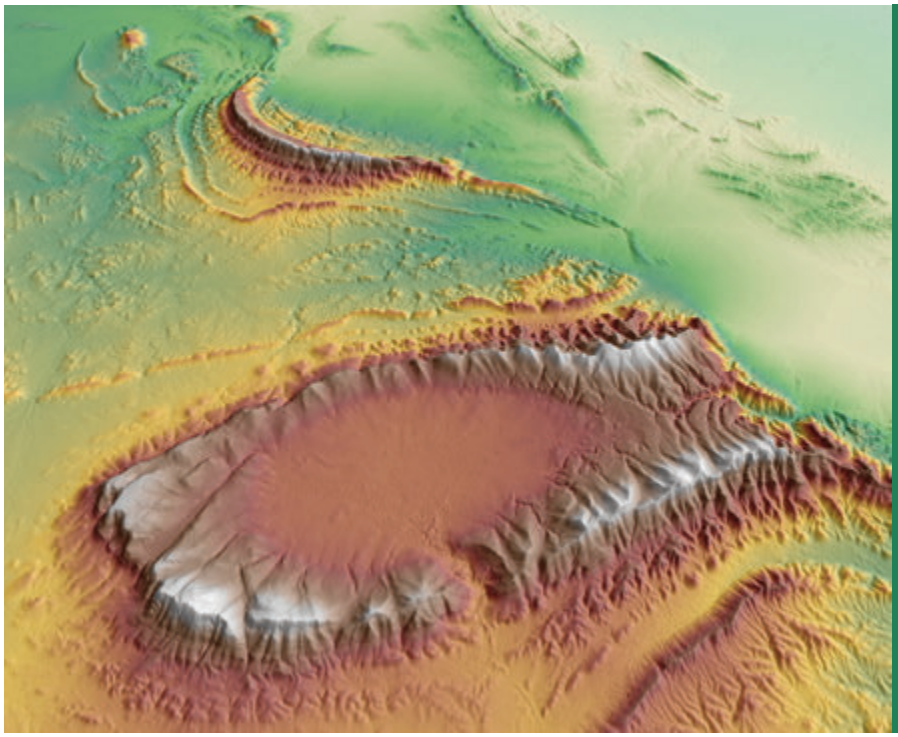
The GEO Elevation product range provides highly accurate elevation information for:

- High-quality image orthorectification
- Multi-scale mapping production
- Defence mission preparation & rehearsal
- Air traffic security
- Hydrologic modelling
- Exploration of natural ressources
- Infrastructure and network planning

Flexible Delivery Options

The scope of delivery can be adapted to individual needs by choosing to add a set of auxiliary layers or corresponding orthorectified images to the input data.

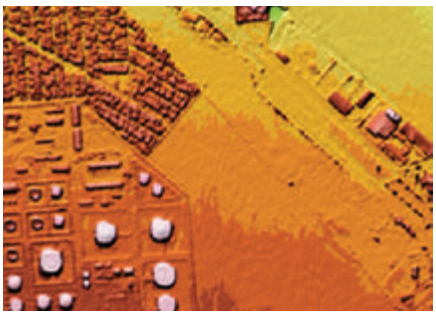
A highly developed digital data processing flow line and a large production capacity allow for unique time and cost-efficient production and delivery.



GEO Elevation products offer the most comprehensive elevation data range available on the market, covering all requirements from large-area coverage to high resolution as well as Digital Surface and Terrain Models.

Very High Resolution Elevation Data

Elevation data of choice for infrastructure and engineering projects



Elevation4

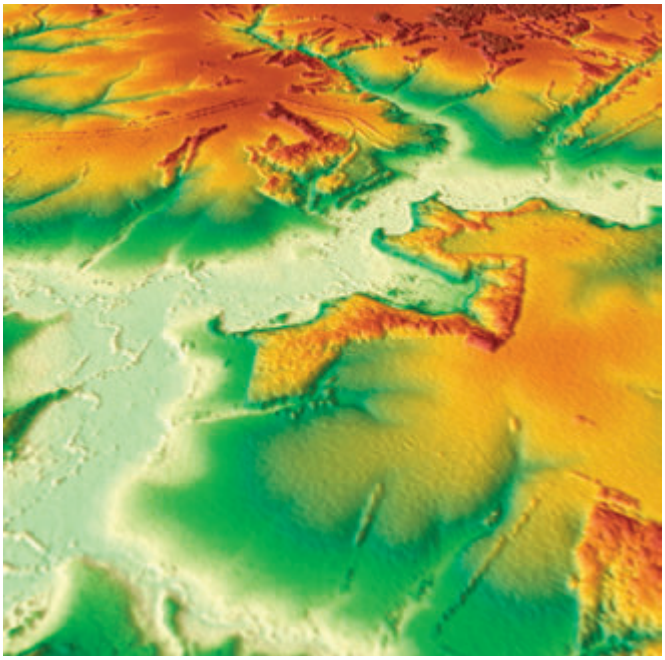
- Down to 2m vertical accuracy at 4m grid spacing
- Based on Pléiades stereo and tri-stereo optical satellite data

Elevation1

- Down to 1.5m vertical accuracy at 1m grid spacing
- Based on Pléiades stereo and tri-stereo optical satellite data

High Resolution Elevation Data

Elevation data of choice for mapping, mission planning, terrain analysis and exploration of natural resources



WorldDEM™

- Down to 2m vertical accuracy at 12m grid spacing
- Homogenous pole-to-pole coverage
- Based on TerraSAR-X and TanDEM-X radar satellite missions*

Elevation10

- Down to 5m vertical accuracy at 10m grid spacing
- Based on TerraSAR-X radar satellite data

Elevation8

- Down to 3m vertical accuracy at 8m grid spacing
- Based on SPOT 6 stereo and tri-stereo optical satellite data

Medium Resolution Elevation Data

Elevation data of choice for image orthorectification and large-scale mapping

Elevation30

- Down to 8m vertical accuracy at 30m grid spacing
- > 80 million km² available off-the-shelf
- Based on SPOT 5 optical satellite data**, voids filling with TerraSAR-X radar satellite data

*** Jointly implemented with the German Aerospace Center DLR**
**** Developed in partnership by Airbus Defence and Space and the French survey and mapping agency IGN as Reference3D**

Accurate Terrain Knowledge for Versatile Applications

Large Area Elevation Information even in Remote Locations

Challenge: Particularly during a project's early design phase, engineering companies require the rapid delivery of accurate geographical information.

Solution: Available off-the-shelf for >80 million km² worldwide, Elevation30 provides up-to-date and consistent elevation information for mapping and terrain modelling applications. The information helps determine the best route, calculate excavation efforts, identify obstructions and locate structures.

Benefits: Elevation30 supports a more dependable calculation of operating expenses and savings on cost and time in the project's design phase - important factors for large engineering projects.

Investigating Global Phenomena

Challenge: Climate change driven sea-level rise considerably affects human populations in coastal and island regions. It is important to attain a good understanding of the underlying complex processes.

Solution: WorldDEM™ can complement and/or substitute airborne elevation information in the assessment of potential hazard zones prone to inundation and provide a better understanding of the global effects of the sea-level rise.

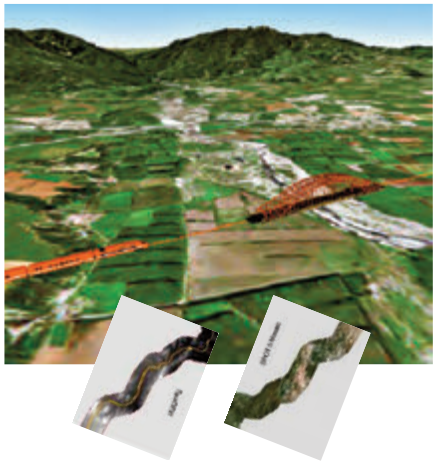
Benefits: Worldwide availability of WorldDEM™ makes it a robust reference layer for risk assessments and investigations of global phenomena. The information supports decision makers to implement efficient countermeasures and monitor the impact of these efforts.

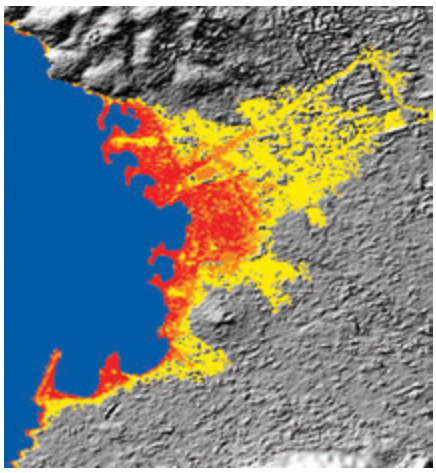
Precise Elevation Data for Infrastructure Projects Worldwide

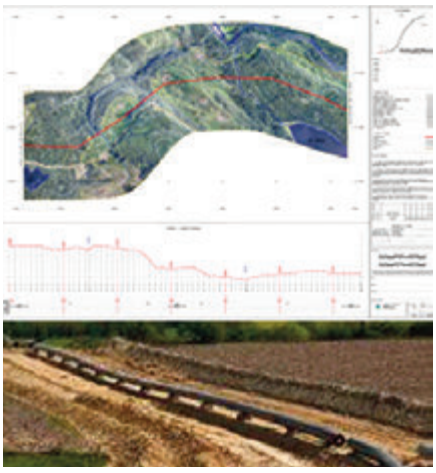
Challenge: Pipeline routes are often planned in difficult-to-access, remote locations, where precise information can be difficult to obtain.

Solution: Satellite data is ideally suited for such purposes as it provides terrain information without the need for on-site surveys. Based on high-resolution Pléiades data, Elevation1 Digital Surface and Terrain Models provide highly detailed and accurate information anywhere in the world.

Benefits: This supports the time-and cost-effective investigation of a proposed pipeline corridor, a dependable preparation of the construction phase and additionally facilitates the careful assessment of possible impacts on environment and landscape.







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