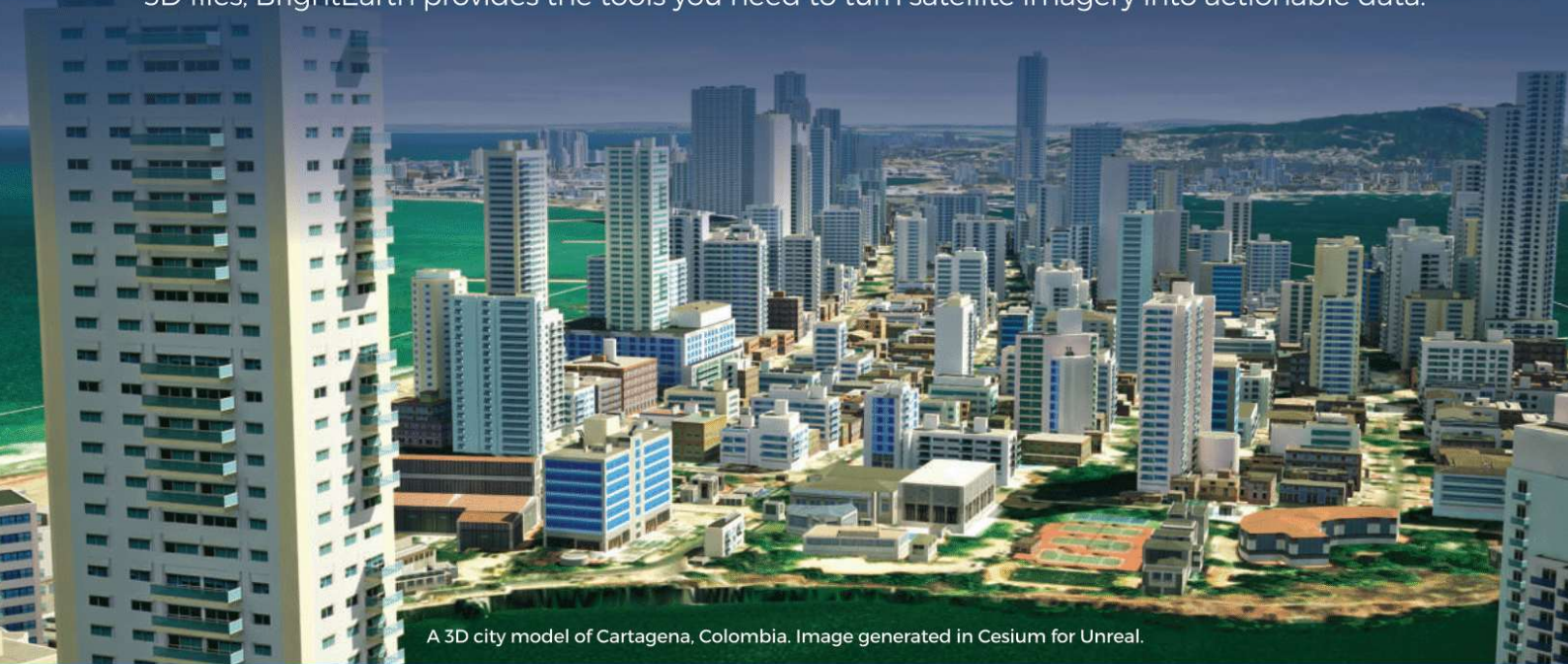




## Transform Satellite Imagery into Actionable 3D Geospatial Data

BrightEarth™ On Demand is a web-based AI-powered platform that allows you to generate 3D geospatial data on demand, from anywhere on the planet. Whether you need vector cartographic assets, segmented rasters, synthetic environments or GIS/CAD-compatible 3D files, BrightEarth provides the tools you need to turn satellite imagery into actionable data.



A 3D city model of Cartagena, Colombia. Image generated in Cesium for Unreal.

### Key Features

#### Turn Satellite Imagery into Vector Cartographic Assets

Easily create vector files ready for  
mapping applications

#### Convert Satellite Imagery into Segmented Rasters

Extract detailed Land Use/Land Cover (LULC)  
raster data for high-level analysis

#### Export 3D Files Compatible with GIS and BIM Software

Integrate data into GIS and CAD tools using formats  
such as .shp, .obj and .3dtiles

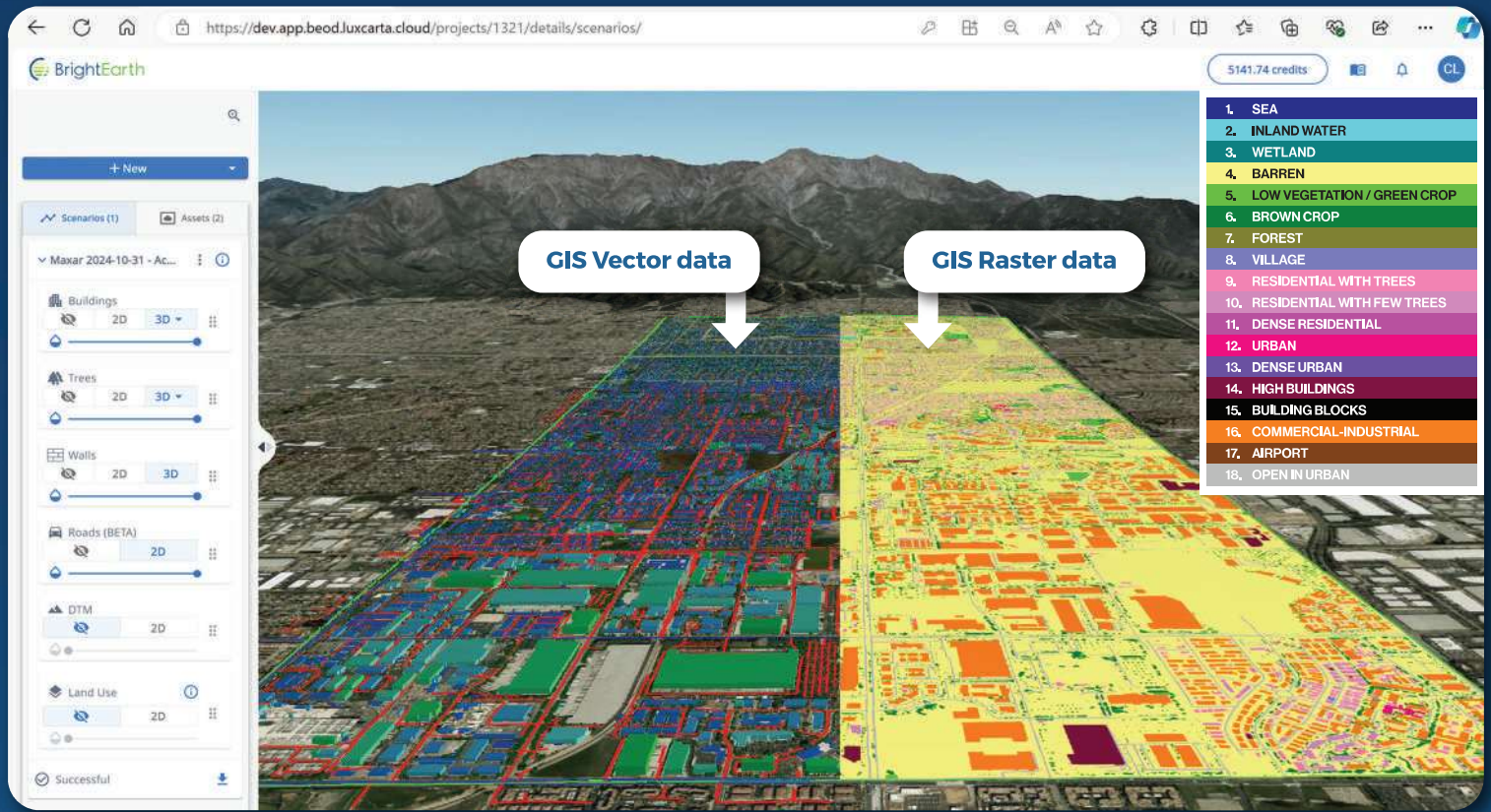
#### Generate Synthetic 3D Environments

Create realistic 3D environments from satellite  
imagery for simulations with 3dtiles or as Indexed  
3D Scene Layers (I3S)

### Where does BrightEarth data fit?

	Geospecific	Geotypical
Shape of building footprint	X	
Roof Color & Roof Shape	X	
Building height	X	
Building Facades		X
Geometric augmentation of roofs		X
Geometric augmentation of facades		X





Rancho Cucamonga, California as rendered in the web interface of BEOD.

## Why BrightEarth On Demand?

### Simple and Quick 3D Map Generation

BrightEarth On Demand allows anyone to easily create high-quality map data, even without prior experience

### Cost and Time Efficiency

Eliminate the traditional time-consuming process of manually converting satellite imagery into cost-effective usable data

### Accuracy and Reliability

Access real-time, high-resolution (50cm) data from trusted global imagery providers. Cutting-edge stereo photogrammetry process is utilized for generating heights

### Broad Access to Advanced Geospatial Data

While 3D geospatial data was historically reserved for large enterprises, BrightEarth makes it available to businesses of all sizes

## Input Data Sources

**Global Basemaps:** Maxar Vivid, OneAtlas, ArcGIS

**Online Orthoimagery Archives:** Maxar, Airbus

**User-provided Imagery:** Integrate your own satellite imagery for personalized data extraction

## BrightEarth Output Formats



### Vectors

.gpkg, .shp and .json  
Polygons - buildings and trees  
Polylines - roads and walls



### Rasters

.tiff & .png  
Land Use/Land Cover (LULC) (18 class)  
Digital Terrain Model (DTM) @10m resolution



### 3D Tiles

.3dtiles (tileset.json +\*.glb)

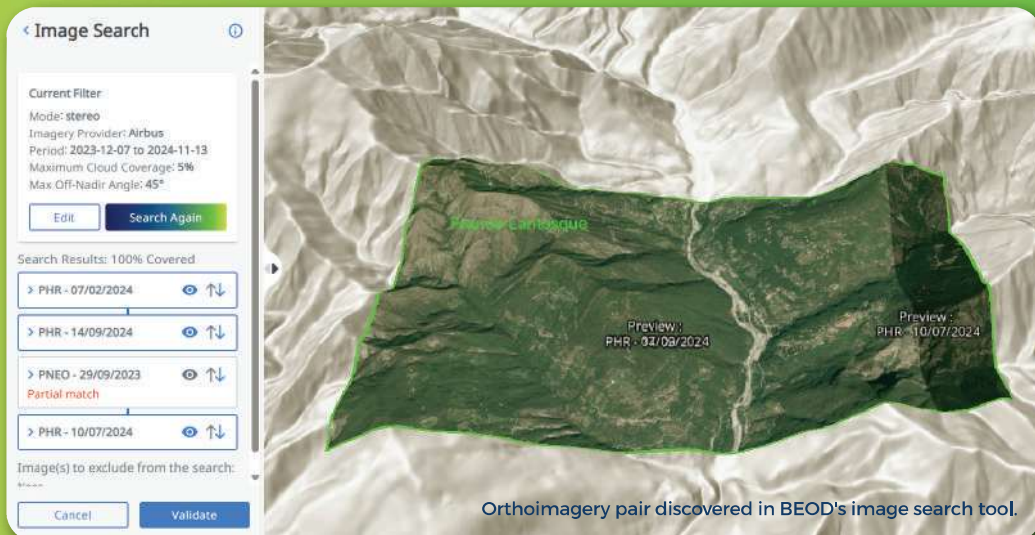
## BrightEarth includes:

### Imagery Search

Filter satellite images by date range, cloud cover or viewing angle. Also search for stereo pairs where required

### 3D Display

Inspect 3D data before downloading, ensuring precision and accuracy



### Fine-tuning

Improve the performance of AI extraction models by retraining with your own imagery and ground truth sources

## BrightEarth API

Unlock the potential of geospatial data with the BrightEarth API. Tailored to developers, our API provides all the tools needed to integrate high-precision, real-time 3D geospatial data into your applications.

## Access, Extract and Download LuxCarta Global Basemaps @10m

Imagery Mosaic

Land Use/Land Cover (LULC)

Digital Elevation Model (DTM)

All layers are correlated. Source imagery for all basemaps includes Sentinel-2.



## Markets



Telecom

### Urban Planning & Architecture



Smart Cities

### Simulation & Training



### Video Games & Metaverses



Location-based Services



# Transform Your Maps with BrightEarth On Demand!

Looking to elevate your geospatial data game?

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



**Interested in BrightEarth capabilities on your secure network?**  
Ask us about BrightEarth on Premises



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

BrightEarth is LuxCarta's platform that utilizes AI-enhanced production techniques to generate high-resolution geospatial data including 3D buildings and vegetation, as well as roads, 18-class land use/land cover (LULC) and digital terrain models (DTM) from a variety of imagery sources. BrightEarth products are made available through a cloud version "On Demand," a software version for use on private networks "On Premises" as well as directly from LuxCarta "Production Services." These innovative products — based on more than 30 years of geospatial and remote sensing expertise — are ready for immediate download in a variety of standardized data formats or as 3D tiles.

This project is funded and supported by the European Space Agency (ESA)

