

DIGITAL MAPPING PRODUCTS

MARKETS WE SUPPORT

SMART CITIES AND IOT

SOLAR ENERGY

TRANSPORTATION

• TELECOM

- ENVIRONMENTAL MANAGEMENT
 - ARCHITECTURE













GEOSPATIAL DATA

WE ARE EXPERTS IN GEODATA PRODUCTION

- Worldwide delivery
- High quality and accuracy
- Flexible price policy
- Long-years experience
- Wide range of mapping products
- Huge off-the-shelf data catalogue

With our many years of experience in mapping products production, we provide our customers with a wide range of high-quality geodata fitted to their needs and budget.

We collect, process and deliver vector datasets of the most popular GIS formats. Vector maps are customized according to customers' specific needs. Our production capabilities are not limited to any region.



2D AND 3D DIGITAL MAPS







VISICOM geospatial data provide a high level of detail in urban and rural areas that allows to identify, visualize and analyze the changes in the natural and manmade environment



Our 2D and 3D maps grant you access to global geographic information, including terrain and landscape features, water bodies and vegetation, 3D manmade objects, detailed administrative boundaries, and population distribution information

The Geodata is delivered in a format compatible with the most 3D application tools like Rhino, ArcGIS and CAD. All major GIS formats are supported



DELIVERED GEODATA LAYERS

- 2D Building footprints
- 3D Building footprints
- 3D Vegetation
- 3D Bridges
- Road Networks
- Street Networks
- Railways

- Terrain data
- Hydrography
- Admin Boundaries
- Landmarks
- Population Data
- Addresses
 - Postal code polygons













GEODATA FOR TRANSPORTATION

GEOSPATIAL DATA IS A NECESSARY COMPONENT FOR THE MUNICIPAL GIS LIKE:

- Road infrastructure planning
- Urban environment planning
- · Networks planning for airports and railroad zone

GEODATA WE PRODUCE FOR THE TRANSPORTATION INDUSTRY:

- 3D buildings and vegetation
- Land use models
- Road network with street names and addresses
- Administrative and zip-code (postal) boundaries
- Digital Terrain Model for initial planning of transport infrastructure



BRISBANE CITY MAP (AUSTRALIA)







3D MAPS

Z

3D MAPS IS THE FIRST STEP AND A BASIS FOR SMART COMMUNITY CONSTRUCTION

WE ARE EXPERIENCED IN GENERATING 3D BUILDINGS AT DIFFERENT LEVELS OF DETAIL (LOD) ALONG WITH 3D VEGETATION AND OTHER GEODATA ABOUT THE URBAN ENVIRONMENT

OUR 3D MAPS CREATE A REAL-WORLD VIEW FOR DIFFERENT TASKS OF SMART COMMUNITY DEVELOPMENT:

- Urban planning: analysis and visualization
- Risk assessment, response planning for emergencies
- Environmental management and planning in cities and suburbs
- Utilities planning: water, electricity, waste

Constructions

- Real-estate management
- · Geo-marketing
- Transport and navigation
- Emergency services



MACHINE LEARNING ALGORITHMS

PRODUCT FEATURES

- 99% of buildings > 25 sq.m matched automatically by the machine learning algorithm
- Completeness (achieved 100% coverage due to manual postprocessing and validation)
- 3m SE90 accuracy
- Rapid production of countrywide building footprints dataset
- Available worldwide
- Based on up-to-date satellite images of 0,3–0,5m resolution



Building shapes and tree polygons are created using an automated production process of object recognition from high-resolution multispectral satellite images. Our Machine Learning methods developed based on Convolutional Neural Networks and the Deep Learning Techniques allow extracting 3D and 2D shapes for the entire country fast and at a high accuracy level

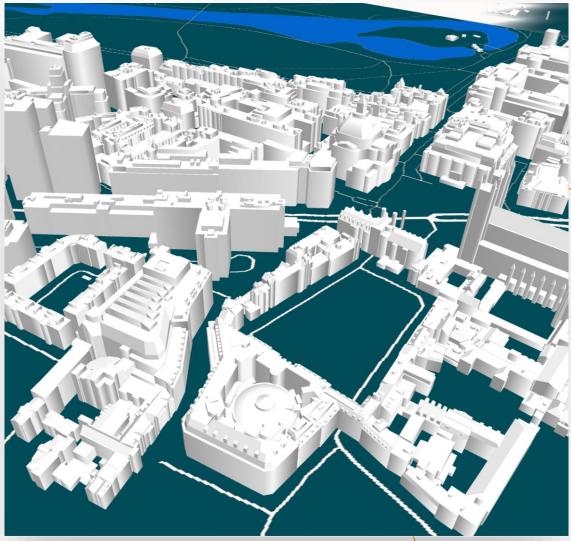
BUILDINGS LOD1/LOD2

- For core cities
- For large urban and suburban areas
- For countrywide

VEGETATION FEATURES

- The vegetation is diverse in nature and can be presented differently in the satellite image depending on various types, colors, heights, and seasons
- Our experts accomplished the training of neural network models using the training set comprised of 30 thousand objects of various vegetation patterns worldwide. This made it possible to achieve a high level of accuracy - 95-98%





UK, LONDON

ARCHITECTS

VISICOM SUPPORTS ARCHITECTS AND ENGINEERS IN MULTIPLE INDUSTRIES WITH PRECISE AND ACCURATE GEODATA:

- 3D LOD 2 Buildings, 3D Bridge and 3D Tree models
- Landscape and Terrain features
- Vector data of Streets and Roads networks and more

Our Geodata helps you with any urban design project, bringing the geographic context into your project and creating a real-world 3D picture.

Geodata is delivered in formats of most 3D application tools like Rhino, ArcGIS and CAD

V



GERMANY, BERLIN

DIGITAL MAPS // FOR SOLAR ENERGY

LOD 2 3D Buildings with sloping roof elements along with 3D vegetation are key initial sources for evaluating solar resource availability and running solar energy simulations

High-accuracy 3D datasets provide high solar project value and increase its performance.

Therefore, data details, accuracy, and relevance are critical parameters for solar resource assessment and modeling



Digital Terrain Model

Digital Surface Model

3D Buildings LOD 2

3D Vegetation crowns

Orthorectified imagery

DIGITAL MAPS FOR SOLAR ENERGY

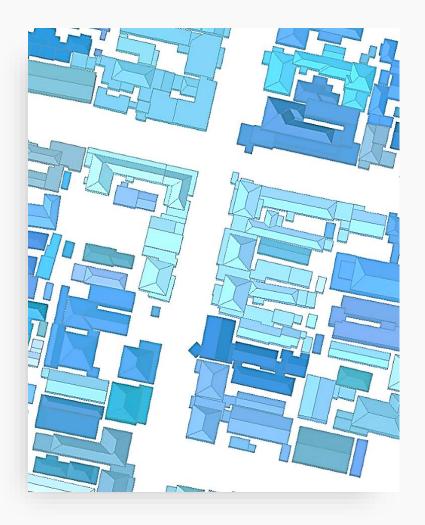
DELIVERED DATA LAYERS

THE ASSIGNED ROOF PARAMETERS

Azimuth
Tilt angle
Area of flat parts
Roof height
Roof ID
AGL/AMSL

The roof parameters are calculated for each element separately, creating the background for producing solar rooftop maps (solar cadasters).

The high accuracy of the building elements' footprints is tailored explicitly to the estimation and calculation of the solar energy potential for each roof.







WATER OBJECTS NATIONWIDE COVERAGE



WATER MAP OF GREECE - 77,000 water objects featuring individual names in English and Greek

The National coverage of water objects is a high-precision vector map generated by leveraging our AI-based algorithms developed for highresolution satellite images processing

Hydrographic objects are divided into groups and classes, by type of water with attributes of:

- Length of coastline
- Area of enclosed water bodies
- Name of the hydrographic objects in English and local language

The water objects are categorized into 31 different classes:

- oceans - seas - bays - estuaries - lakes - rivers - streams - reservoirs - springs - waterfalls - rapids - etc.

The dataset serves as the foundation for many land use and city planning applications and environmental management tasks:

- Climate change mitigation
- Flood mapping
- Infrastructure deployment



OTHER GEODATA WE DELIVER

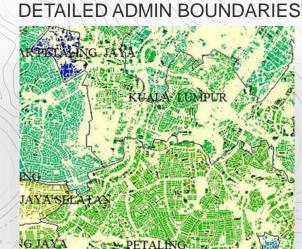


- Collection from governmental sources
- Matching with administrative boundaries
- Polygons geocoding
- Postal code applying

ADDRESS DATA BASE



- Unique building ID
- Country code
- Name or admin unit
- Type of street
- Name of street
- Zip/Postal code
- House number



State

- Provinces
- Districts
- Municipalities
- Settlements etc.

POPULATION DATA



- Based on the latest available census data
- Takes into account the country features
- Provides attributes such as
- population quantity and density for each built-up block or area



DIGITAL MAPPING PRODUCTS

DETAILED MAPS ARE AN ESSENTIAL AND MANDATORY BACKGROUND FOR SPATIAL ANALYSIS

PRECISE AND UP-TO-DATE GEODATA ENSURE THE RELEVANT INFORMATION TO ESTIMATE ALL THE POSSIBLE OUTCOMES AND MAKE A BETTER DECISION

OUR PROFESSIONAL AND CUSTOM-ORIENTED TEAM WORKS FOR YOU TO FIT YOUR PROJECT GOALS AND BUDGET



High quality and accuracy





Two years warranty



Highly competitive and flexible prices



Kyiv, Ukraine

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