



INTELLIGENCE

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Company Introduction



WHAT WE DO

Dabeeco provides earth analysis information through AI-based DIGITAL TRANSFORMATION technology.

We aim for global Digital Transformation by offering digital spatial services and developing AI for geospatial analysis.

- ✔ We can quickly and accurately analyze a large area on a global scale.
- ✔ It becomes possible to perform statistical analysis of geospatial characteristics, reflecting large-area data in real time.
- ✔ We can precisely track and analyze trends according to changes over time.
- ✔ You can collect consistent quality data without manually visiting steep slopes and dangerous areas.

BUSINESS DEVELOPMENT

Started with the geospatial data business for the Limited Area,
we are expanding the market for geospatial analysis business targeting the entire Earth.

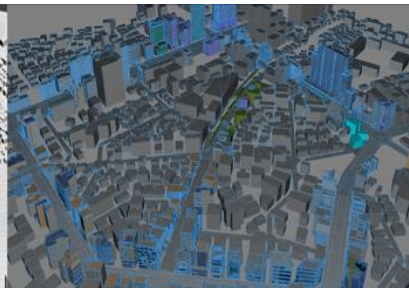
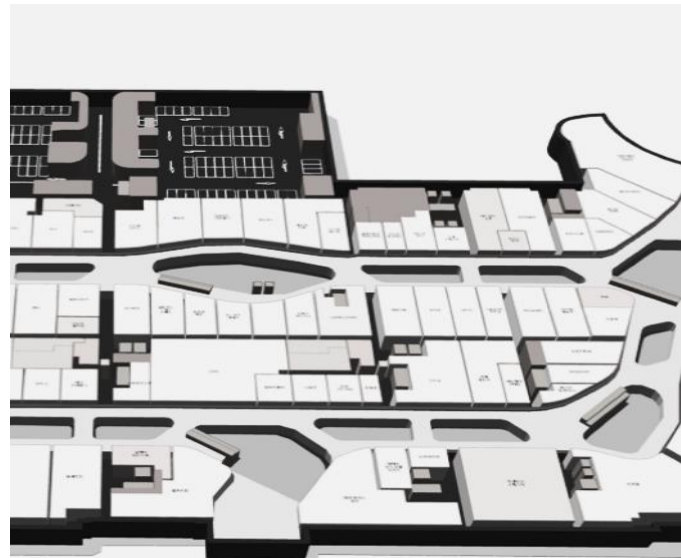
LIMITED AREA

EXTENSIVE OUTDOOR AREA

GEO INTELLIGENCE

GEOSPATIAL DATA

GEOSPATIAL DATA



02

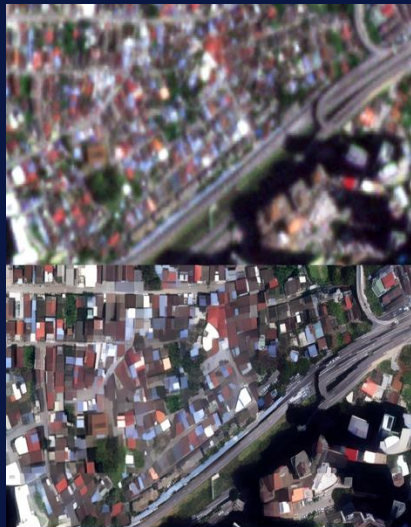
Technology & Service

Technology & Service



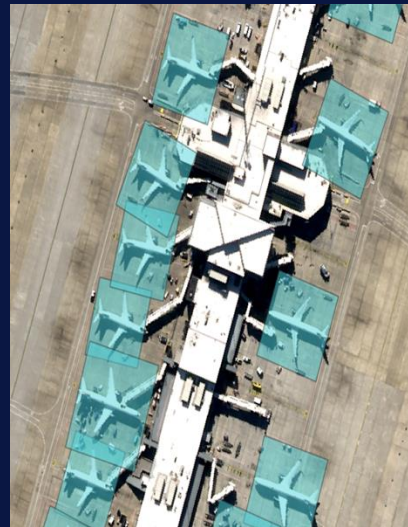
Image-based GEO AI Technology

Dabeoo's five core technologies are optimized for the analysis of large geospaces and the extraction of data from necessary areas. With Dabeoo's AI and image deep learning technology, you can derive insights needed for business.



Super-Resolution

Contributes to the improvement of deep learning training data accuracy by converting low-resolution satellite/aerial images to high resolution.



Object Detection

Extract various types of specific objects according to the purpose, and detect and digitalize the size, direction, and type of objects



Instance Segmentation

Extracting information such as the shape and length of roads and buildings for creating global geospatial information.



3D Reconstruction

Building indoor and outdoor 2.5D building models and high-precision 3D building models from multi-view overlapped 2D images (RGB).



Change Detection

By utilizing multiple satellite/aerial images, changes over time can be detected and the creation/destruction of terrain/objects information can be analyzed.

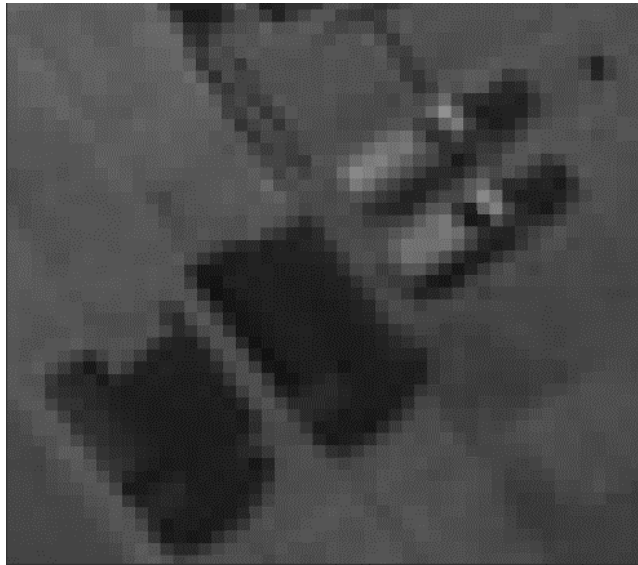
Application areas | Urban analysis / Road information update / Urban development and planning / Environmental change monitoring / Military facility monitoring / Specific object status identification / Length / Change detection extraction / Urban polygon data extraction, etc.

The background features a glowing blue Earth with a complex network of white and blue lines and dots overlaid, representing a digital or data network. The text is centered over the Earth.

Dabeeco can create a **Digital Earth**
using its **5 CORE TECHNOLOGIES**

Super Resolution

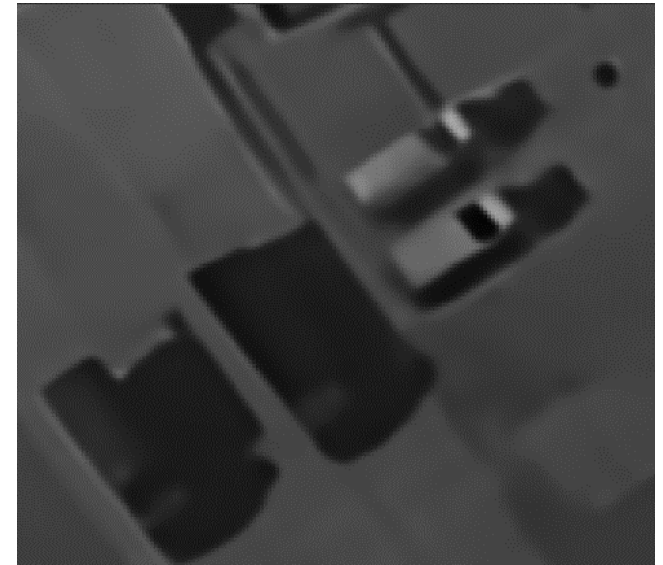
We improve up to 4 times the image quality by applying AI technology in order to acquire high-resolution satellite/aerial images at a reasonable cost and improve analysis accuracy.



1X (Source Data)
50cm from Satellite



2X Enhanced
35cm



4X Enhanced
25cm

Super Resolution

We improve up to 4 times the image quality by applying AI technology in order to acquire high-resolution satellite/aerial images at a reasonable cost and improve analysis accuracy.



1X (Source Data)
50cm from Satellite



4X Enhanced
12cm

Super Resolution

We improve up to 4 times the image quality by applying AI technology in order to acquire high-resolution satellite/aerial images at a reasonable cost and improve analysis accuracy.



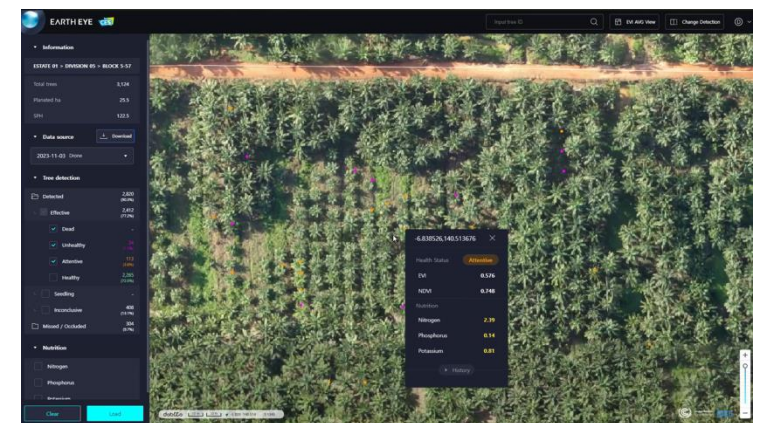
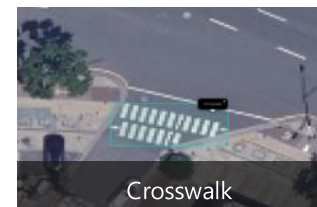
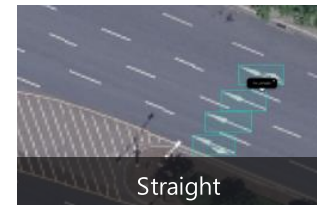
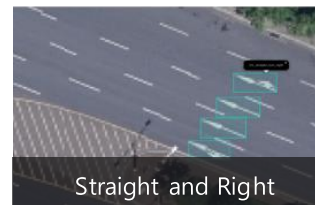
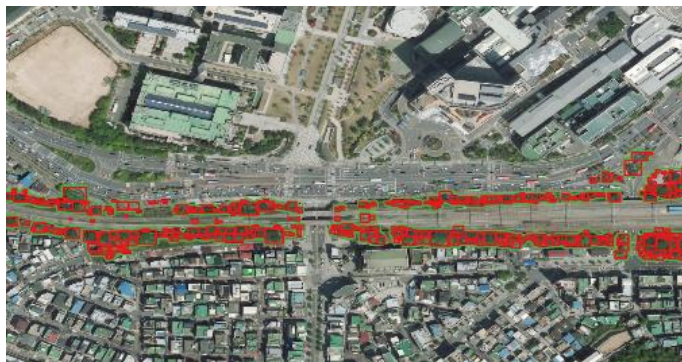
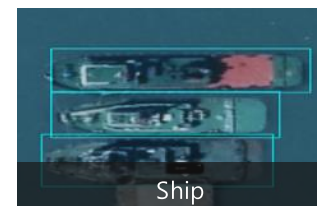
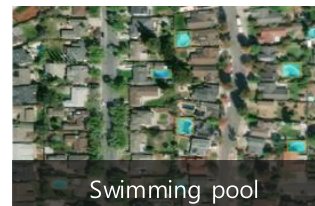
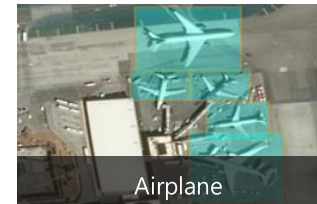
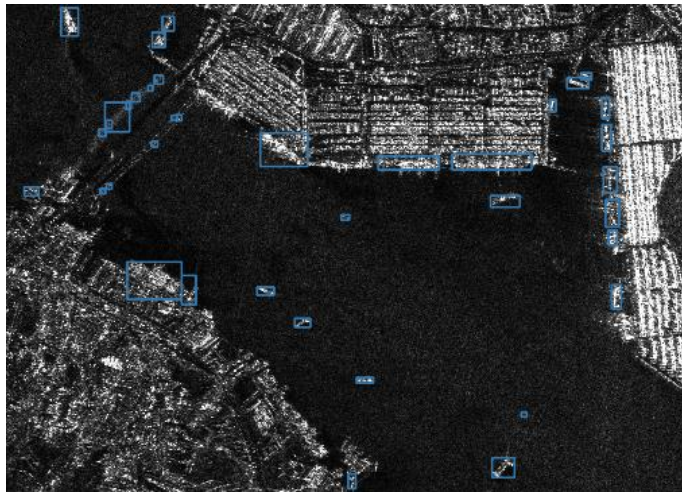
1X (Source Data)
50cm from Satellite



4X Enhanced
12cm

Object Detection

We discover various dynamic/static objects in urban and marine environments, monitor the health of natural resources, and derive necessary insights by analyzing various resources on Earth with AI technology.

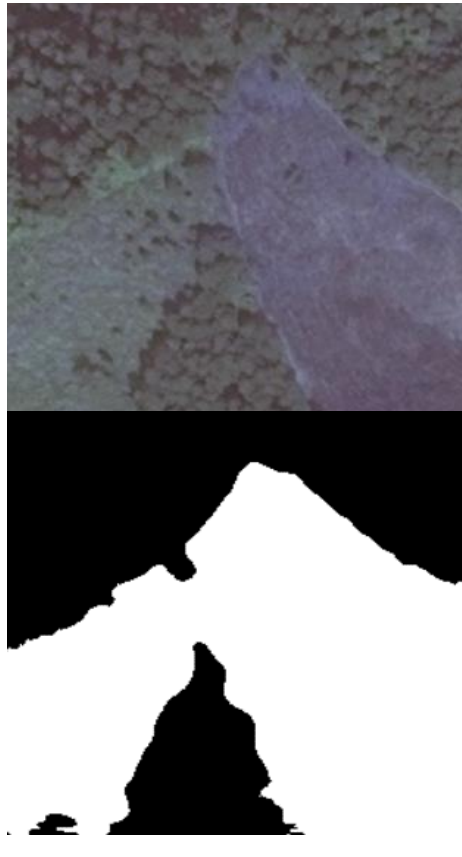


Instance Segmentation

We extract digital spatial information of a wide area and define the characteristics of the area by quantifying and analyzing shape data such as buildings, roads, and natural resources.



Building Segmentation



Deforestation area Segmentation



Road Segmentation

Performance comparison of area extraction

Aerial Photograph 25cm resolution
comparison in City area



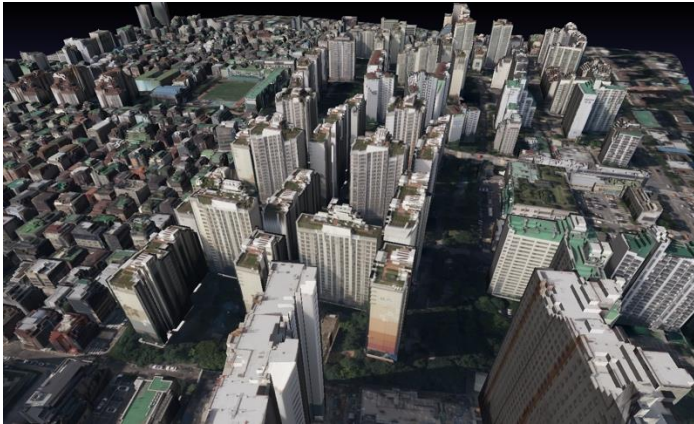
Dabeo Segmentation



Global A Company (Commercial Platform)

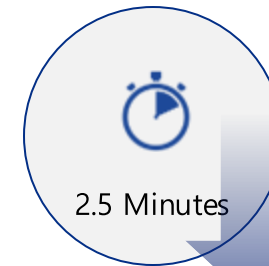
3D Reconstruction

To achieve the construction of an Earth digital twin that overcome physical and geospatial constraints, we implement more sophisticated 3D geospatial reconstruction technology based on the fusion of multi-resolution and multi-source data.



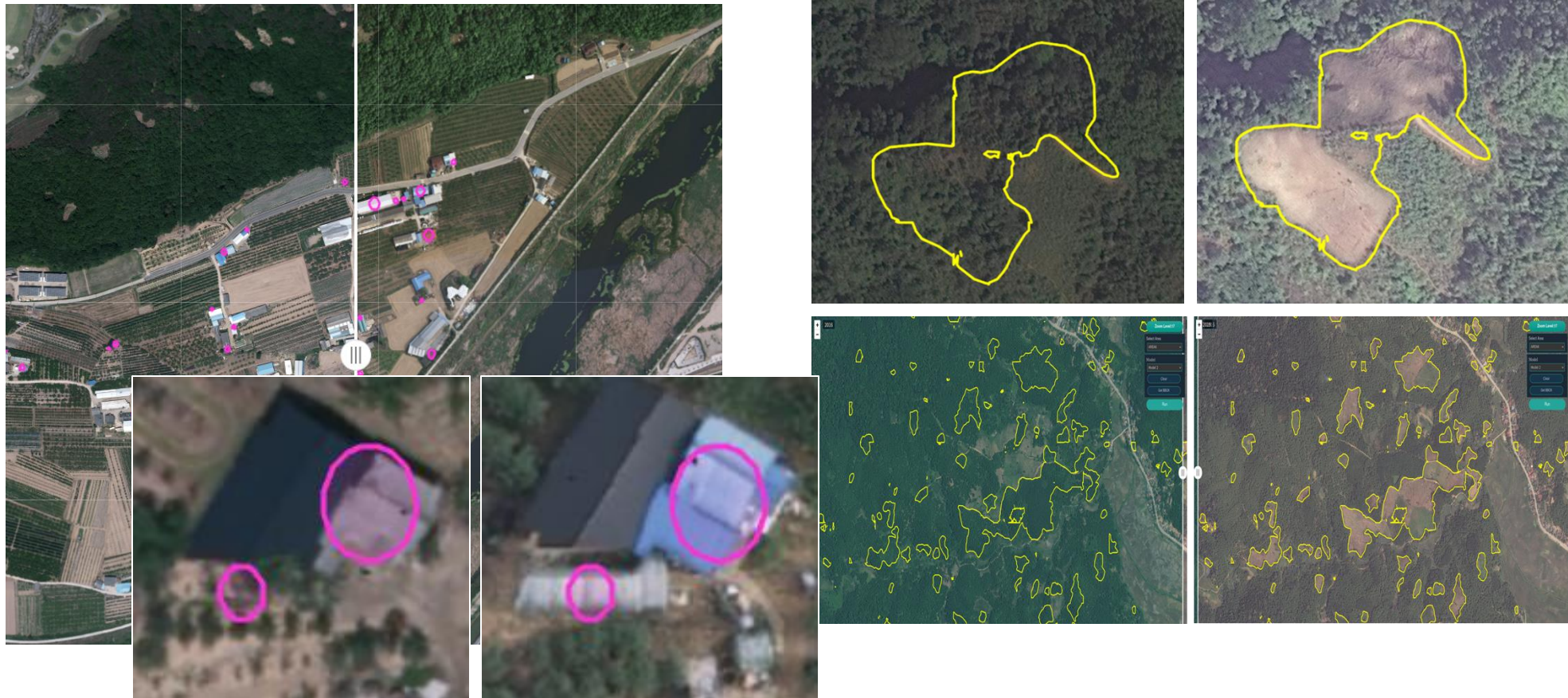
Cost/time reduction through automation

Reconstruct 100 buildings to 3D
(Creation of Mesh & Texturing at LOD 1.2 level)



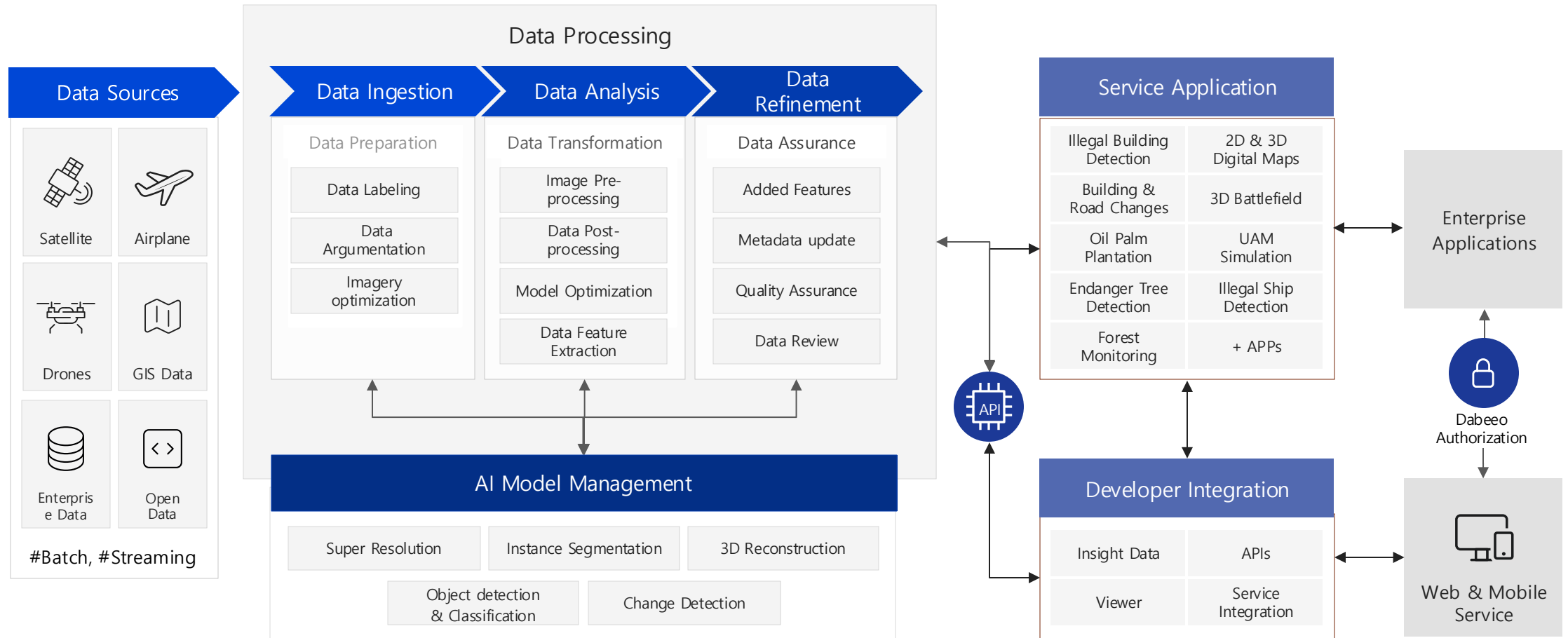
Change Detection

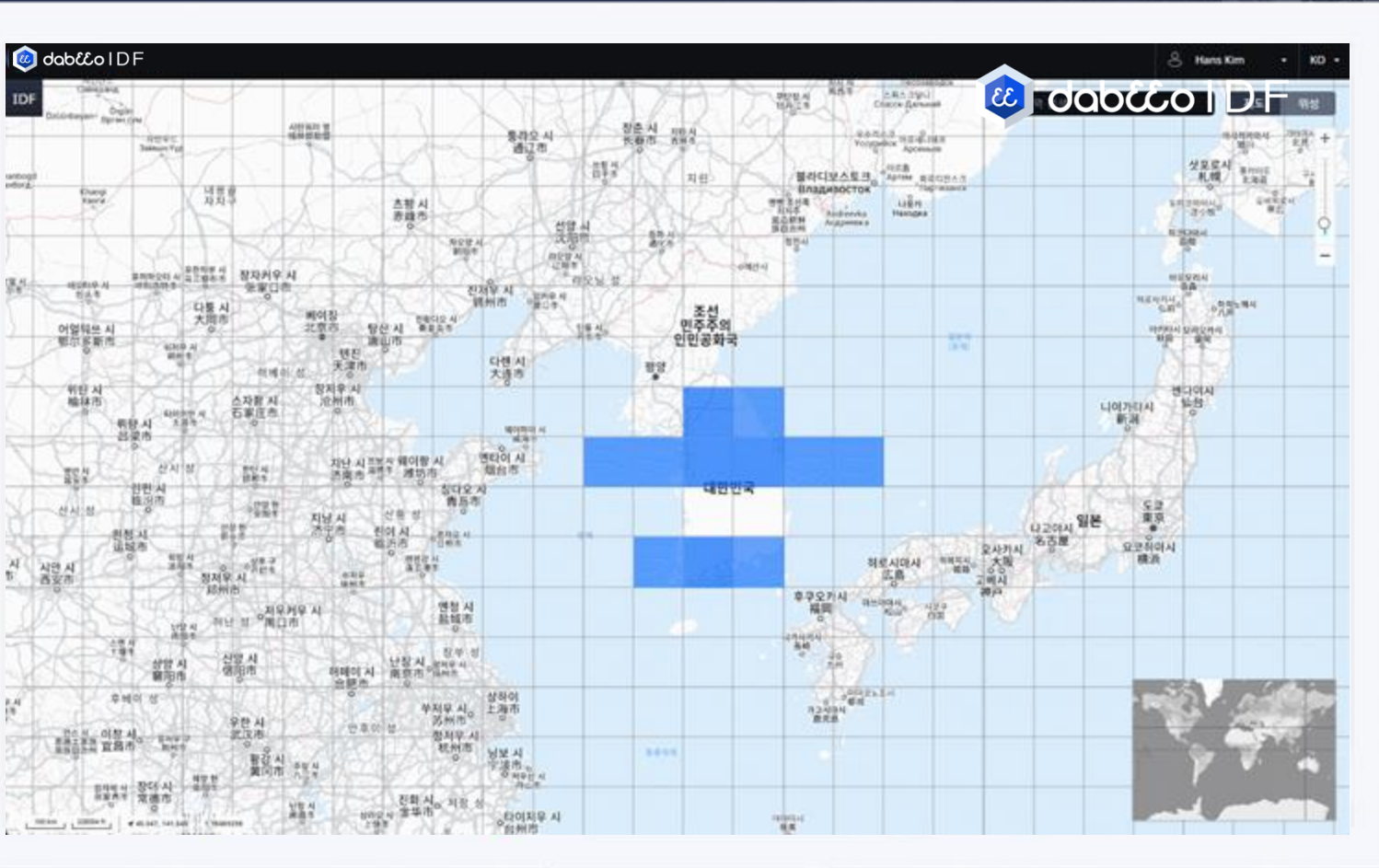
We help maintain the most updated geospatial data and derive necessary insights with technology for analyzing changes in spatial information over time.



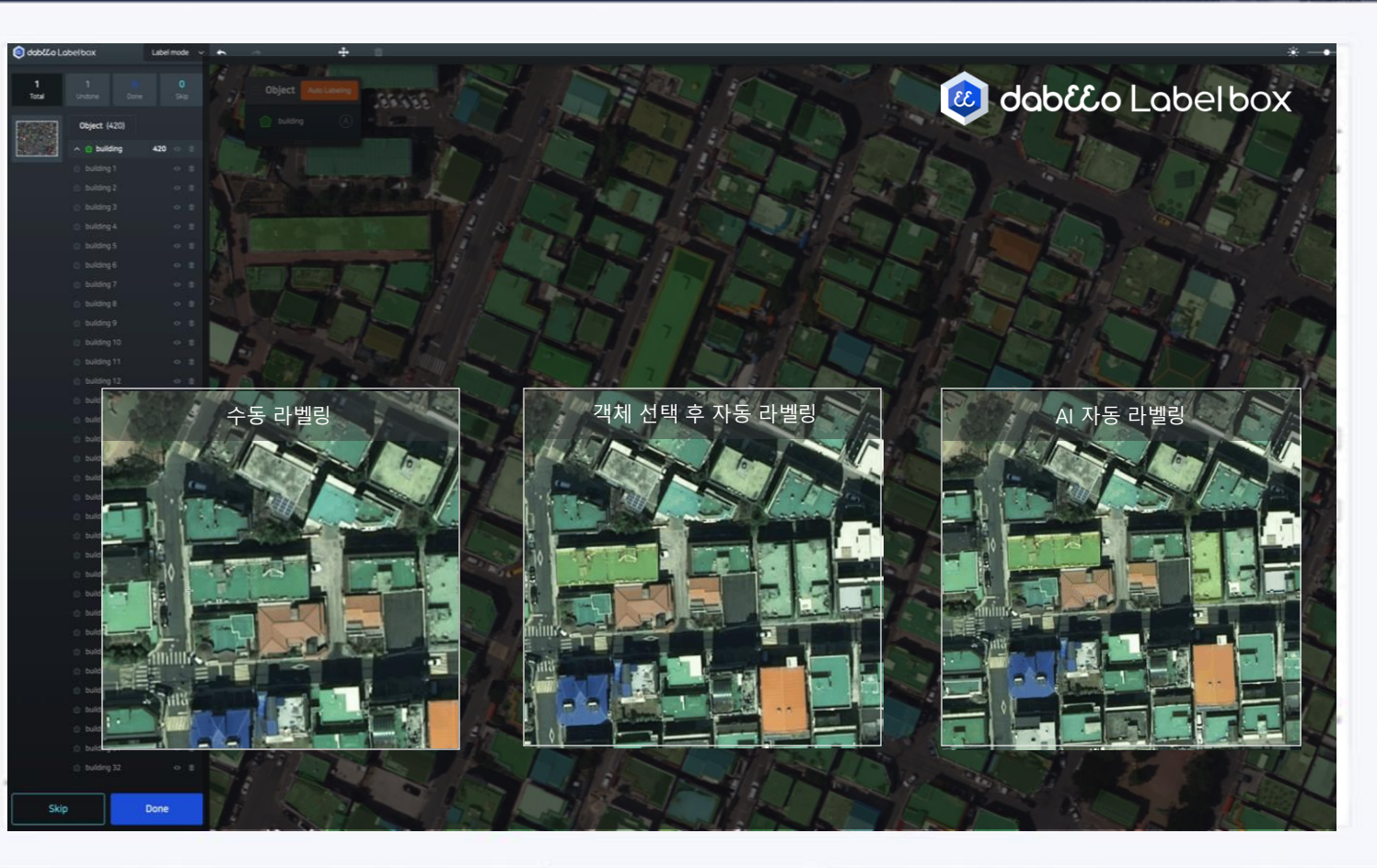
GEO AI Platform

Dabeo provides earth analysis information through **AI-based DIGITAL TRANSFORMATION** technology





Imagery DATA Management System



AI-Powered Automatic Labeling System

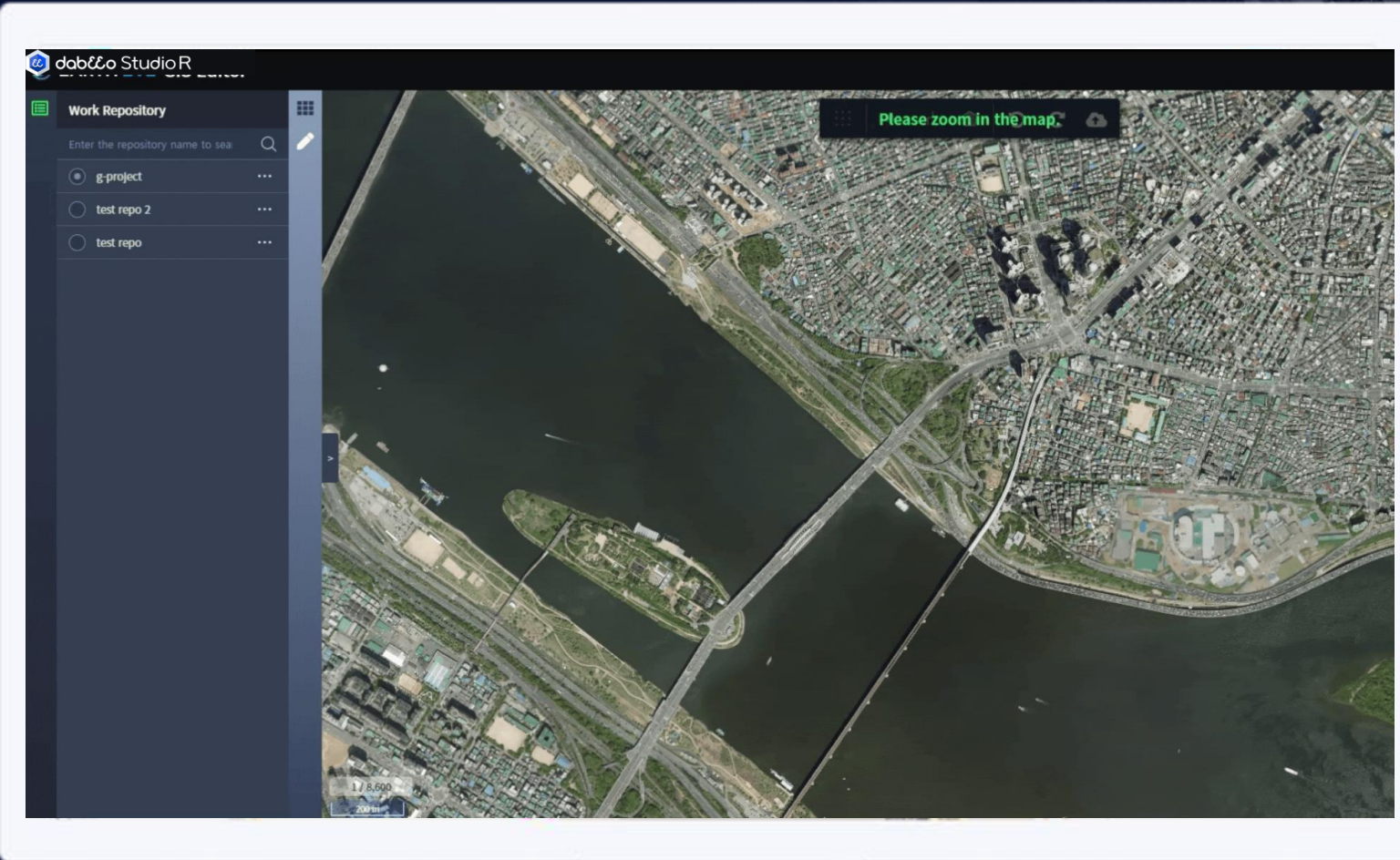
The screenshot displays the Dabeeco Earth Eye software interface. The main window shows a satellite map of a coastal town with a large green segmentation overlay. The interface includes a sidebar with navigation options (Result, Request) and a control panel with the following settings:

- Result Detail**
 - Project: Narcon PPA Building And Road segmentation
 - Project ID: [5504279811604856]7054920512061984
 - Coordinates: 1701356400 - 1706713140
 - Segmentation
- Detection Result**
 - Opacity: 100%
- Model Name (ver.)**
 - Result: Building Segmentation (v1.0)
 - Detecting: 5052
 - Area (km²):
- Data Images**
 - Opacity: 100%
- Base Map**

At the bottom, there are four thumbnail images illustrating different capabilities:

- 초해상화 기술 Super Resolution**: A high-resolution street view.
- 이미론적 분할 Instance Segmentation**: A street view with individual buildings segmented.
- 변화 감지 Change Detection**: A street view with a red overlay indicating changes.
- 객체 탐지 Object Detection**: A street view with labels for 'Vehicle' and 'Ship'.

Earth data analytics system



City/Nationwide GIS Information Management and Maintenance Solution



Trueorthophotography and 3D Reconstruction and Management Solution

03

USE CASE



Global 3D Maps



UAM Simulation



Illegal Building
Detection



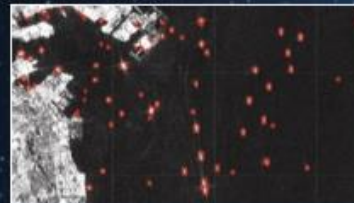
Forest Monitoring



Endangered
Tree Detection



Oil Palm Plantation
Monitoring



Illegal Ship
Detection



Building & Road
Changes

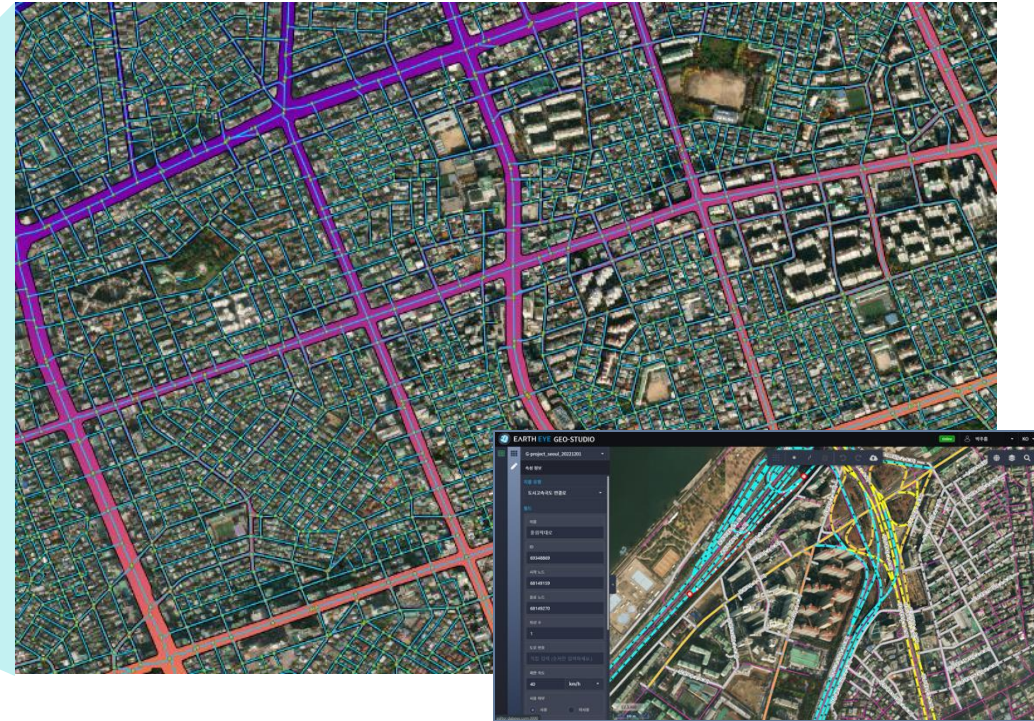
Digital Maps Data

Building and Road , Node-link for map data of large area at the national and city scale takes a lot of time.

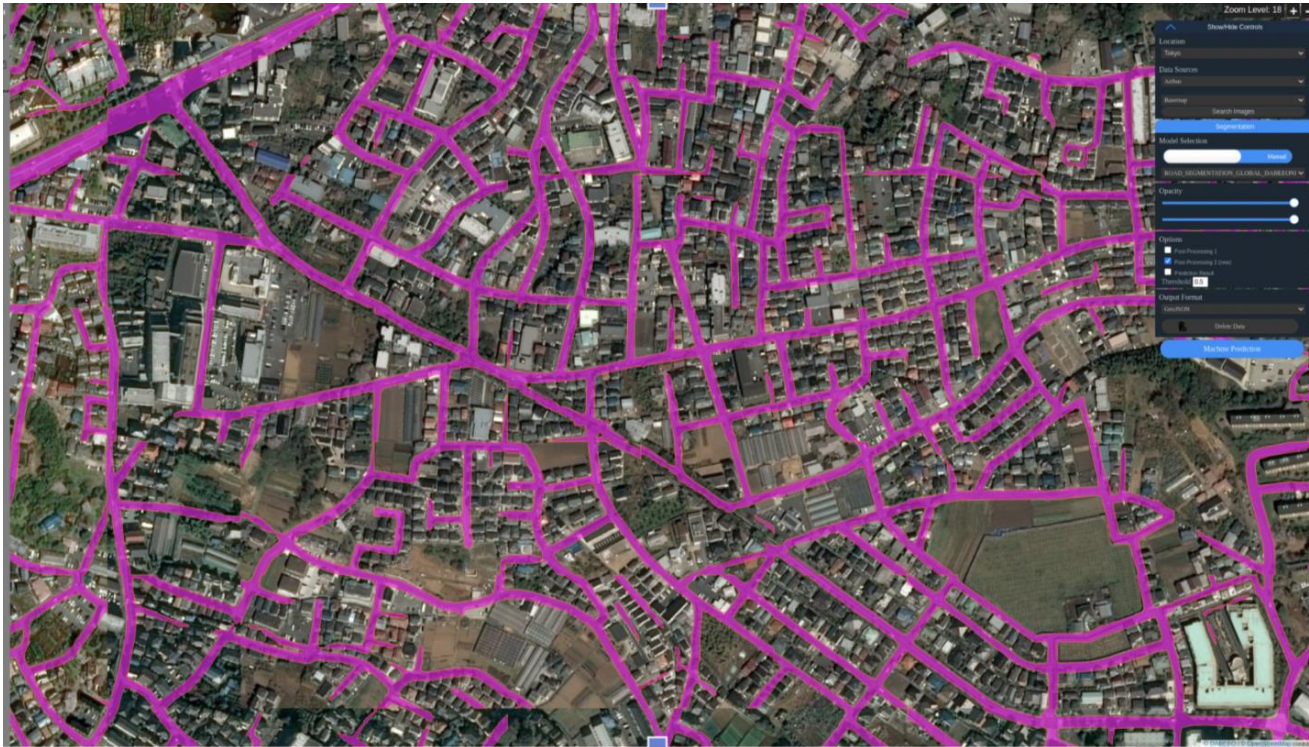
Dabeoo quickly constructs map data, including building and road information, through satellite-based AI technology.



Digital map Construction of large geospaces at the city/national level

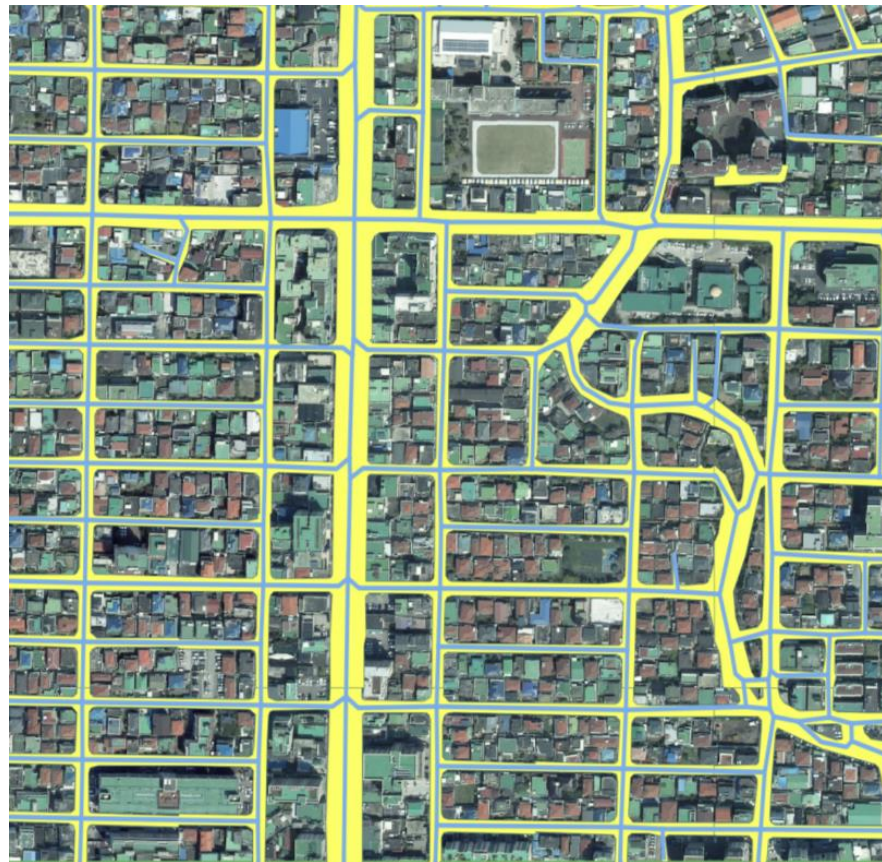


Digital Maps Data

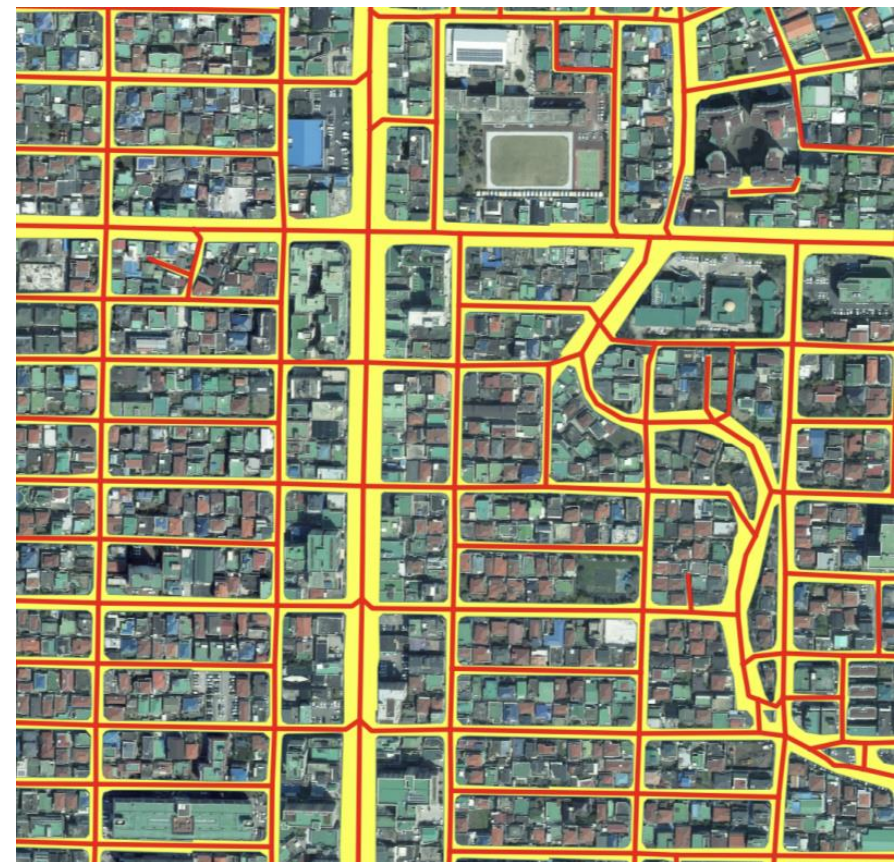


Digital Maps Data

AI-Powered Extraction



Dabeeo Da-Fy Solution



Illegal building detections, Road changes

Our AI technology expands its functions to monitor illegal buildings, monitor the impact on the urban environment, identify hazardous areas, and maintain smart city management and services.



The screenshot displays the dobeo Eartheye web application interface. The main view shows a satellite map of a city with road segmentation overlays in blue. The interface includes a sidebar with controls for 'Detection Result', 'Model Name (ver.)', 'Road Segmentation (v1.0)', 'Data Images', and 'Base Map'. The main map area shows a dense urban area with roads highlighted in blue. A zoomed-in view of a specific area is shown in the bottom right corner, with a legend indicating 'Segmentation' at 30% opacity and 'Imagery' at 100% opacity.

Building Changes(Illegal Construction) Detection
(2020,2021, 2022 Every Year)

Simulation



Game and Digital twin World



UAM Simulation Service



Nature Monitoring

By applying AI technology specialized in forest resources to satellite images, we quickly collect and analyze data for the protection and management of natural resources by detecting objects or measuring the amount of change in areas.



Abies Up Trees

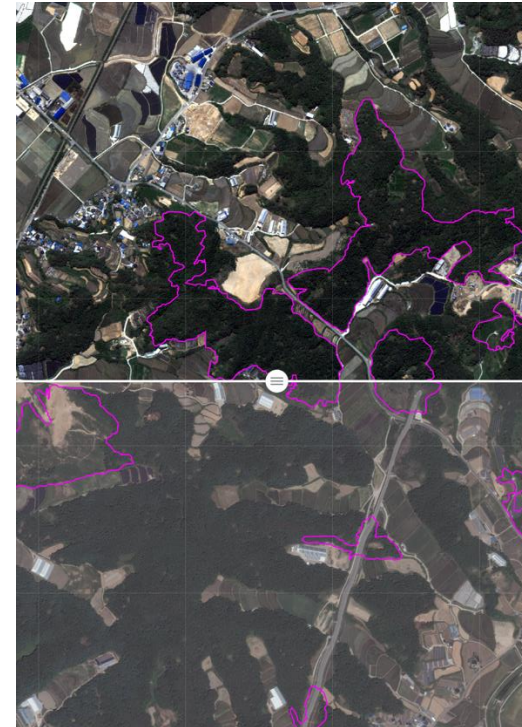
Abies Down Trees

3 Types of Trees

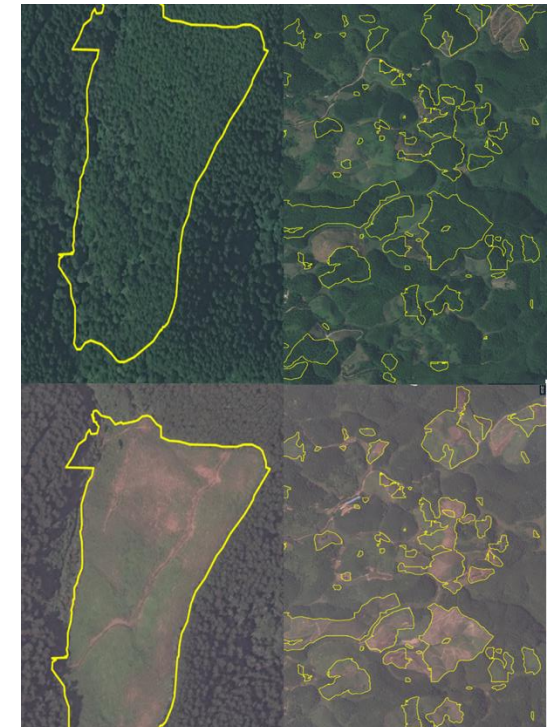
General Trees



National Park Service - Monitoring the status of dead Abies trees in the seven national parks (2019~2020)



National Park Service – Detecting Deforestation
(Heterogeneous satellite image fusion analysis
Maxar 50cm, Komsat 70cm)



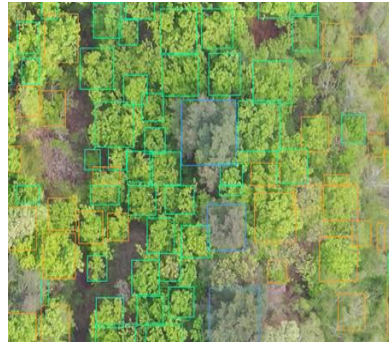
Korea Forestry Promotion Institute, SK Forest -
Measurement of deforestation in northern Vietnam
(Coop Research, Vietnam Northern 7,000sq.km)

Agriculture and Forestry Analysis

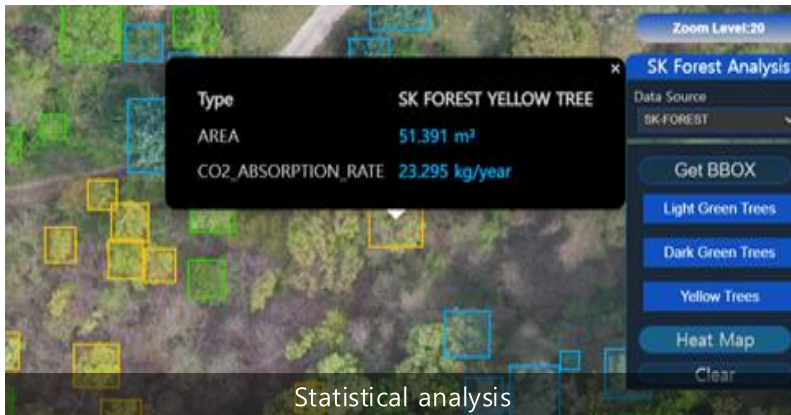
We add great value to the natural resources by applying analysis tools such as carbon absorption calculation and palm tree ecological monitoring to targeted forests. In recent connection with carbon neutrality, business area can be expanded to detect deforestation, monitor the ecological environment, and even carbon emission credit business.



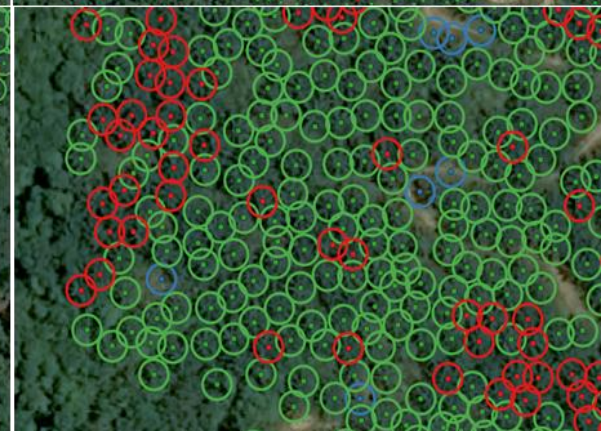
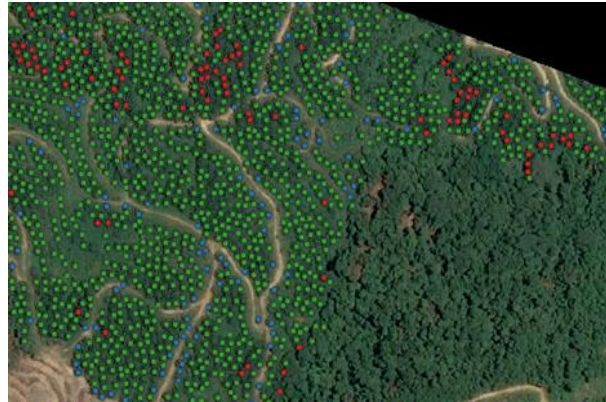
Urban Trees



Forest Trees



Statistical analysis



04

Live Demo





THANK YOU