㈜슈타트
IN STADT

Create **Green Smart Cities** Based on Sustainable Technologies

㈜슈타트
STADT

STADT
BROCHURE

Sustainable Technology And Digital Transformation
For The Smart & Inclusive City

▌INDEX

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STADT

▌ Greeting

For smart technology and digital transformation
STADT starts.

Smart windway and heat island evaluation technology for creating a sustainable and future-oriented urban environment, Digital GHG inventory construction technology for Zero Carbon City, Drone/LiDAR filming and smart image analysis technology for 3D measurement and analysis of urban space, DB construction and analysis technology using GIS for data-oriented future city decision-making, we started smart city consulting as our main business field through the synthesis of all these technologies, necessary for efficient digital transformation of the future city.

City is a dynamic space that is always changing.
This is because the characteristics of a city must be analyzed through systematic and scientific techniques to properly predict the future.

Experts for this have gathered at STADT. And we will start, for a human-friendly future city.
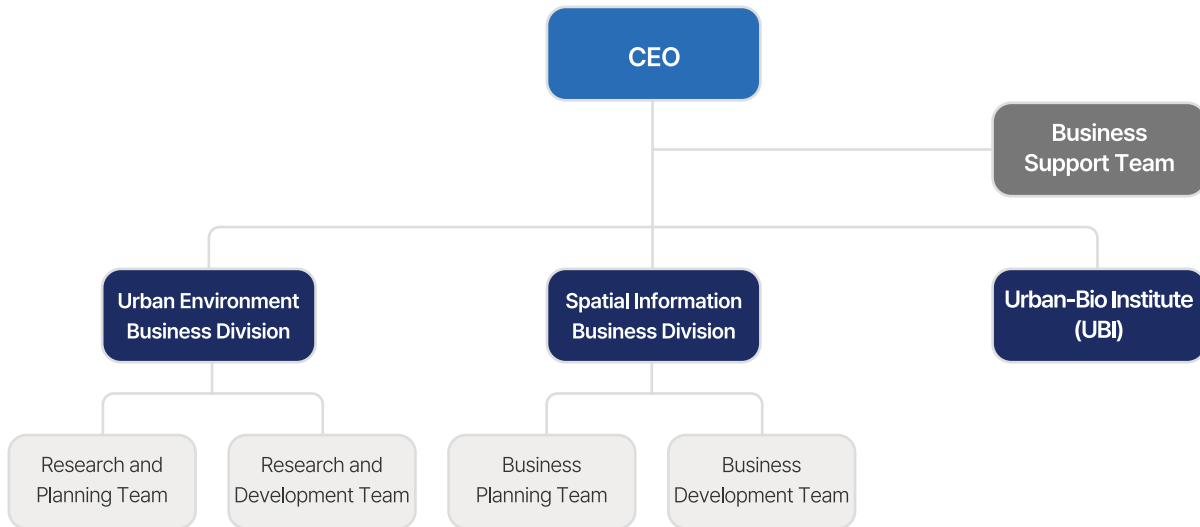
"STADT, Start!!!"

STADT CEO Daewuk Kim

▌ Company Information

Business Field	Software Development and Supply GIS Application Software Development Supply Building Portal and Internet Information GIS R&D Services / Other Engineering R&D Business Technical Research Service / Academic Research Service Environmental Engineering / Design, and Aeronautical Photography Business
Year of Establishment	January 15, 2020
Address	Head : 307, Waryong-ro, Seo-gu, Daegu Business Division/Research Center : 165, Magokjungang-ro, Gangseo-gu, Seoul Branch : 11-31, Yongji-ro 169beon-gil, Seongsan-gu, Changwon-si, Gyeongsangnam-do
Contact Information	Head : 053-721-6268 | Business Division/Research Center : 02-6958-6268 Branch : 070-4639-6460 Fax : 053-721-6269

Organization Chart

```
                          CEO
                           |
                           |------------ Business
                           |             Support Team
        _____|_____
       |                   |                   |
Urban Environment   Spatial Information   Urban-Bio Institute
Business Division    Business Division         (UBI)
   ____|____            ____|____
  |         |          |         |
Research  Research   Business  Business
and       and        Planning  Development
Planning  Development Team      Team
Team      Team
```

Status of Manpower Retention by Sector

(Unit : Person)

Category		Total	Specialization			Note
Position	Education		Urban Engineering	Environmental Plan	Spatial Information	
Director	Dr.-Ing.	2	1	-	1	
Head Researcher	Ph.D.	3	1	1	-	
	MSc.		-	-	1	
Senior Researcher	Ph.D.	4	-	2	-	
	MSc.		-	-	2	
Junior Researcher	Bachelor	2	-	1	1	
Assistant Researcher	Bachelor	1	-	-	1	
Researcher	Bachelor	3	-	1	2	
Total		15	2	5	8	6 Ph.D.

History

2020.01	Established STADT
2020.04	Software business operator report (KOSA)
2020.05	Established a R&D department (Future City Research Team)
2020.06	Venture company confirmation registration
2020.11	Signed MOU with Yangju-si, Gyeonggi-do
2021.03	Selected as a social venture company
2021.08	Relocation of head office (Knowledge Industry Complex - D-Center 1976)
2021.11	Registered as business using ultra-light planes (Busan Regional Office of Aviation)
2022.07	Windmap v1.0's GS certification
2022.09	Particulate matter spread prediction system and method patent applicationn and patent application

Business Performance

2020

Pyeongtaek-si / Gumi-si
Pyeongtaek-si/Gumi-si Baramgil Forest Establishment Project Site
Selection Adequacy Analysis and Creation Effect Prediction
Daegu Green Environment Support Center(1st)
Daegu-si spatial information-based life-friendly pariculate matter
monitoring system establishment research task
Daegu-si
Analysis and Preliminary Design of Urban Windways and Forest
Creation Project in Daegu-si
National Park Research Institute
Valuing national park ecosystem services
Buk-gu, Ulsan
GIS Status Analysis of Urban Regeneration Activation Areas in
Buk-gu, Ulsan
National Institute of Disaster and Safety
A study for the continuous operation and improving
the effectiveness of the active fault map system
Gwangju-si/Wonju-si, Jeungpyeong-gun
Windway analysis for urban wind ventilation forest planning
Ulsan-si
Analysis of Windways for the Creation of Urban Windway Forest
in Ulsan-si

2021

MSIT/MOIS
Establishment of real-time particulate matter monitoring and
response system tailored to resident living space
Daegu Gyeongbuk Research Institute
Establishment of GIS DB for urban management direction research
according to urban spatial structure reorganization
Seoul-si
Connection and visualization of climate statistics map in Seoul
Daegu Green Environment Support Center(2nd)
Daegu Metropolitan City's spatial information-based life-friendly
pariculate matter monitoring system establishment research task
Daegu Green Environment Support Center(2nd)
Daegu Metropolitan City's spatial information-based life-friendly
pariculate matter monitoring system establishment research task
Gwangju Regional Meteorological Agency
Development of climate impact information utilization technology
according to urban environment changes
Ministry of SMEs and Startups
Development of spatial information-based windway simulation
technology for prediction of fine dust spread

2022

Daegu Green Environment Support Center
A study on the carbon absorption effect of urban forest in Daegu-si
Daegu Gyeongbuk Research Institute
Establishment and analysis of safety DB related to Daegu-si safety
management heavy equipment plan
Yangju-si
Yangju-si windway model development and data set construction
method consulting
Jeonju-si
Development of meteorological and climate information production
technology in Jeonju-si
Daegu Green Environment Support Center(Dalseo-gu, Daegu-si)
A study on the establishment of carbon neutrality strategy in
Dalseo-gu, Daegu-si

2023

Daegu Green Environment Support Center
Establishing informatization strategies for managing and operating
Geo-IoT-based systems for small air emission prevention facilities
Gwangju-si and Jeonju-si Regional Meteorological Offices
Development of Convergence Service Using Urban Weather and
Climate Information in Jeonju-si
Dalseo-gu, Daegu-si
Operation of integrated management system for fine dust using IoT
Gyeongnam Research Institute
Construction of World Geological Theme Park in Hapcheon Unseok
Collision Zone Analysis of Development Site and Visual Data
Production Service
National Institute of Disaster and Safety
Development of Disaster Site Image Data Collection and Situation
Information Search Model
Gyeonggi-do Provincial Office of Education
Establishment of Future Early Childhood Experience Education
System Using Intelligent IoT at Northern Gyeonggi-do Early
Childhood Experience Education Center ISP Establishment Service
Busan Institute of Science and Technology
Analysis of GIS Basic Data for the Improvement of the Development
Restricted Zone System in Buulgyeong

URBAN MICRO CLIMATE

▌ Urban Microclimate

The use of windway plays an important role in urban thermal environment management. This is the best technological alternative to the new climate system. We are conducting more objective and reliable research by analyzing urban windway changes and thermal environment based on geographic information.

01 Windway Analysis

Urban-scale windway analysis can be used to analyze and predict the results through windway simulation, and use this information to pre-evaluate future climate change caused by environmentally friendly urban and regional development and to support decision-making.
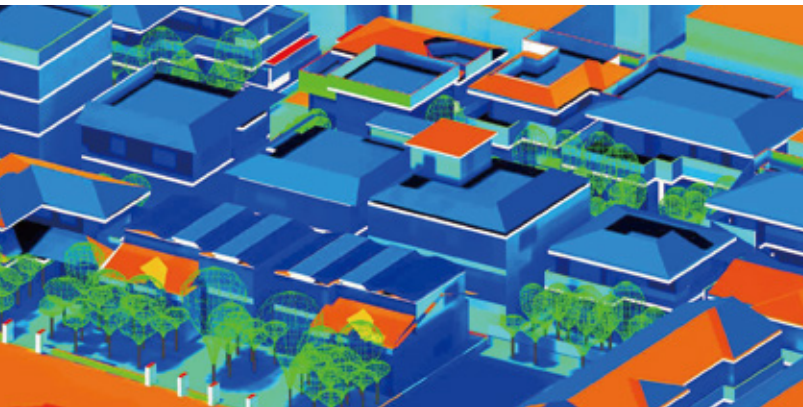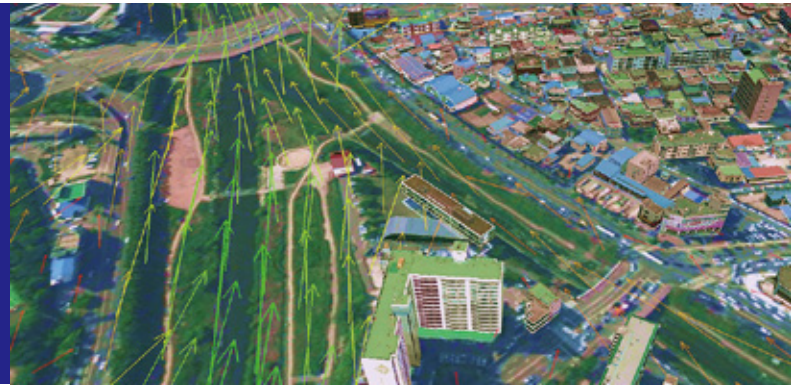
02 Thermal Environment Analysis

Through thermal environment simulation, we analyze and evaluate changes in land cover, increased artificial arrangement, building materials, trees, shading, and urban thermal environment.

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Urban Environmental Planning

Promote rational urban development through consulting on ecological city construction technology. We are improving the quality of citizens' lives by analyzing essential landscapes and pre-analyzing privacy violations according to the right to sunlight.
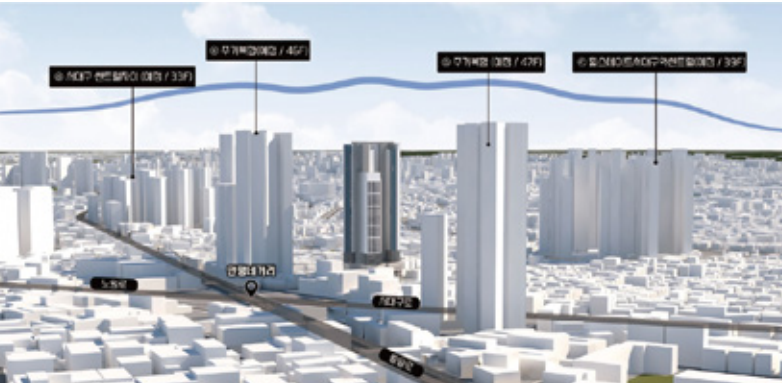

01 Smart City Consulting & Carbon Neutrality & Landscape Planning

Smart city master plan and basic design services are provided in consideration of the needs of urban development agents. We develop carbon neutrality and landscape planning in compliance with the landscape planning guidelines.

02 Analysis of the Right to Sunlight

Quantify the results of solar simulation through real-life 3D modeling.

08:00

16:00
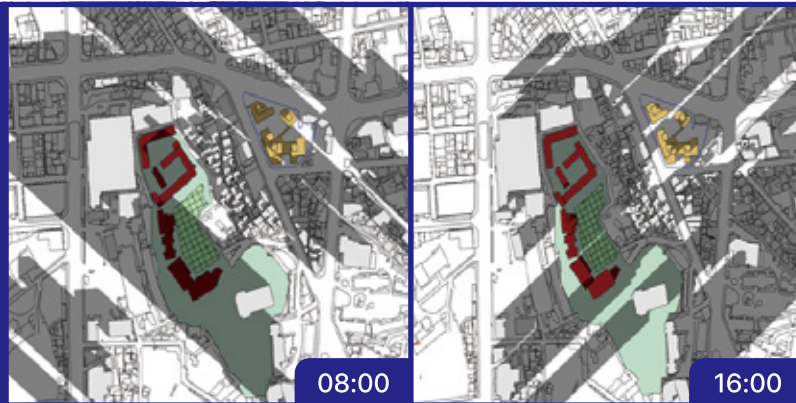
URBAN ENVIRONMENTAL PLANNING

URBAN INFO.

Data Construction

We provide big data services by building sophisticated structured data based on real coordinates and shape information. It also collects spatial and video information and provides various analysis, services, and statistical information data.

Big Data

Spatial Information

Video Information

Statistical Information

01
BIG DATA

Analyze your data production environment and build the best big data service environment and data through association with your data.

Collection	Storage	Processing	Analysis	Visualization
ON-LINE OFF-LINE	Save Physical Location	Data Structure by DB Design	Data Analysis by Algorithm	Display chart/map data

Build data using structured and unstructured data and provide the best data for analysis with the characteristics required.

Work Plan·Design → Data Collection, Review → Data Classification, Processing → Data Structuralization → Quality Control
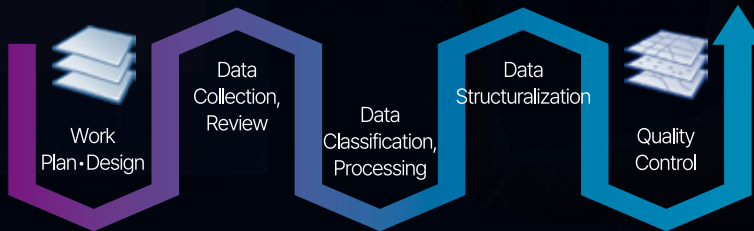
02
SPATIAL INFO.

03
VIDEO INFO.

Provides high-quality data by utilizing satellite images and images obtained from special camera equipment.
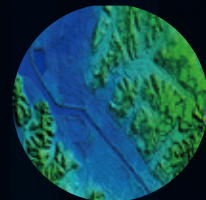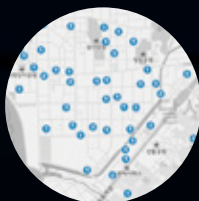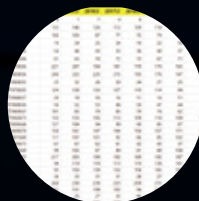
Aerial Image   Video   Special Image

We use various spatial statistical techniques to generate statistical information and produce various types of user-friendly data.

Map Type   Numerical Type   Categorical Type

04
STATISTICAL INFO.

System Development

Spatial information systems are a field that combines location and attribute information data into topography, oceans, and various objects to provide customized customer service centered on 2D and 3D space. STADT is constantly pioneering new paradigms.

01 Solution

Our best workforce in spatial information develops solutions to meet customer needs and provides reliable and professional customized product services in a variety of environments.
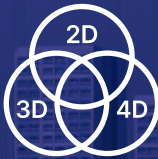
02 Service

Based on open source-oriented software and 2D~4D spatial information at the highest level of technology, we provides the services required by various fields and institutions.

03 Integration

We use our own solutions and data to successfully carry out projects and create optimal information by building a complete system from system planning to implementation.
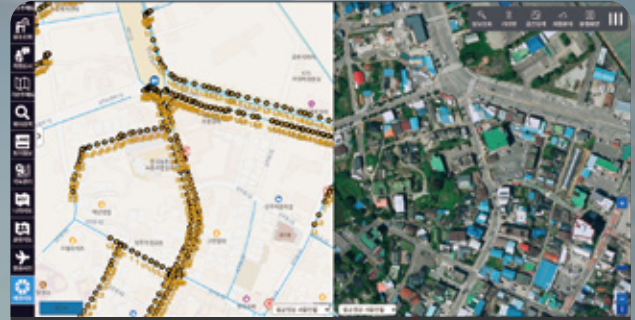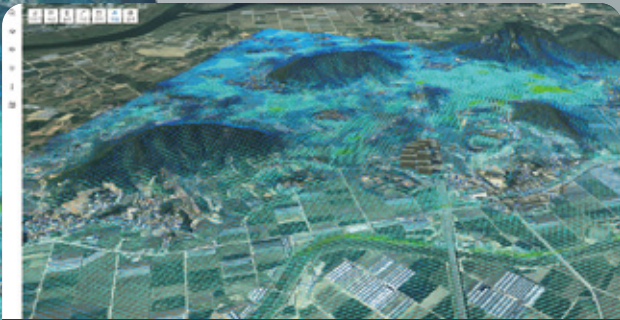
04 Management

A/S

Based on professional work experience and know-how in operating the system, a stable and efficient system management system is established to operate and manage the system with the best performance and quality.
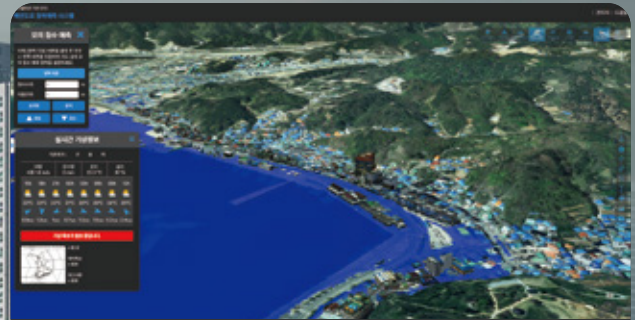
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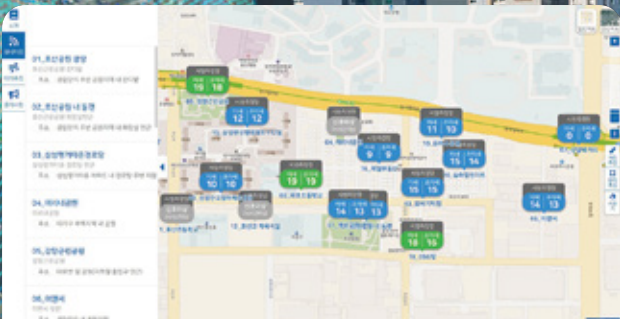
Urban Infrastructure Management System

Spatial Information Utilization System

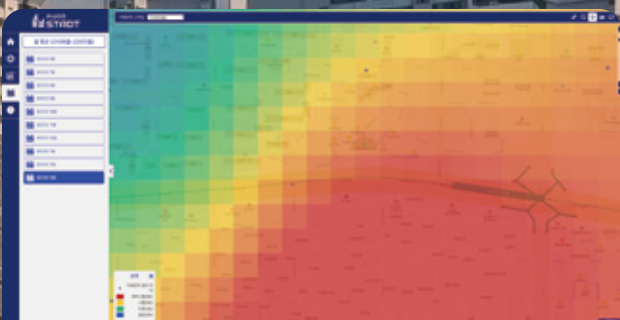
Windway Utilization System
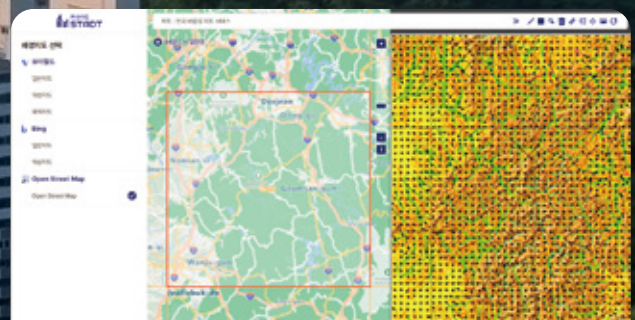

Digital Twin Utilization System

IoT-Based Fine Dust Monitoring System

Data Integrated Management System

Thermal Environment Map System

Urban Climate Change Utilization System

▍Unmanned Aerial Vehicle

We're collecting information, LiDAR It is pioneering a new path in the drone field through observation and special drone production.

01 High-Resolution Imaging

Leveraging state-of-the-art technology and equipment, the installation of full-frame lenses based on 3-axis stabilization gimbals provides high-precision data acquisition and accurate centimeter-scale information collection data.

Also utilizes the Real-Time Kinectics (RTK) method to obtain high-precision spatial information image data without errors.

02 LiDAR Observation

Aerial LiDAR surveying techniques are used to measure the ground arrival time of the pulsed laser to calculate the spatial position of the reflection point, thereby extracting three-dimensional information. This creates accurate numerical models for facilities and topographic properties.

In addition, it has the advantage of being able to quickly acquire high-altitude observational information and three-dimensional information.

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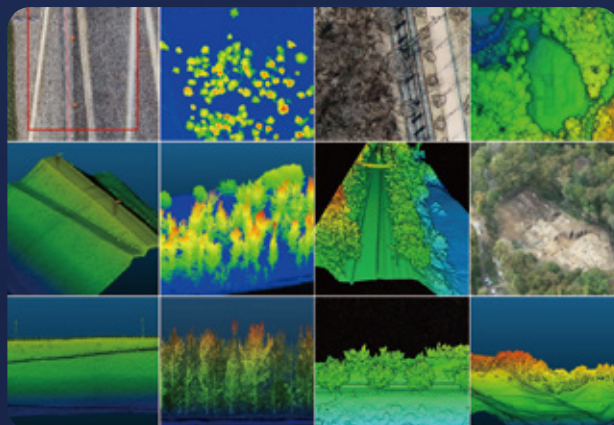
03 Data Processing

It uses real-time mobile positioning to provide high-quality image data and 3D model data based on error-free image information.

The LiDAR observation information can be obtained as 3D PointCloud data as it is, and the data processing know-how and technology are utilized to generate and provide basic data for various decision-making.
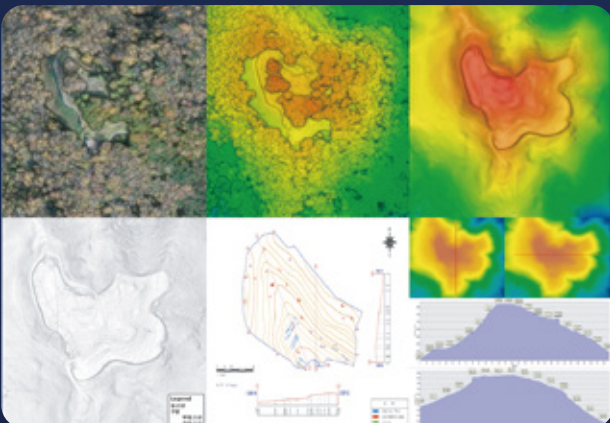
04 Performing Special Tasks

For tasks utilizing drones for industrial equipment operations and special missions, customized drones are built and prototyped through device development and operational equipment customization.

We support special tasks of drones in various fields such as tree batteries, water quality measurement, delivery, event support, bridge inspection, and control of loading defects.
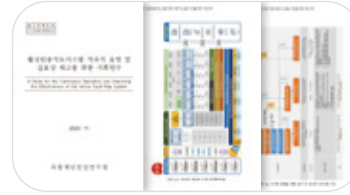
Service Consulting and Product Introduction

Daegu Metropolitan City's spatial information-based life-friendly pariculate matter monitoring system establishment research task
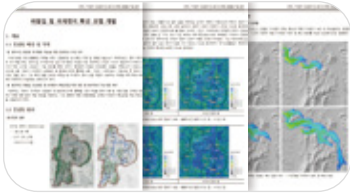
Daegu Green Environment Support Center

Valuing national park ecosystem services
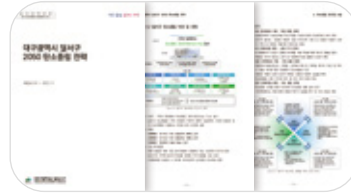
National Park Research Institute

A study for the continuous operation and improving the effectiveness of the active fault map system

NDMI

Yangju-si windway model development and data set construction method consulting

Yangju City Hall

A study on the establishment of carbon neutrality strategy in Dalseo-gu, Daegu

Daegu Green Environment Support Center

Policy Establishment Research Service for the Application for Carbon Neutrality City Designation

Gimpo City, Gyeonggi Province

STADT WindMap

WindMap

STADT WindMap is a user-friendly wind road analysis tool that is a simulation solution that can predict wind flow and fine dust spread, and is GS-certified by the Korea Information and Communication Association (TTA).

Reporting Solution

Provides windway analysis results to users in report forms, such as tables and graphs.
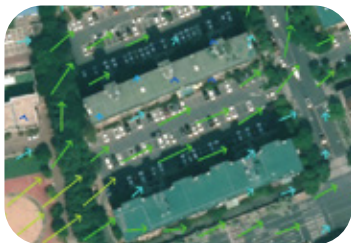
Cold Wind Analysis

It analyzes and predicts the flow and generation of cold wind based on topography and land use.

Pollution Diffusion Analysis

It provides analysis on the spread of pollutants such as fine dust and hazardous chemicals.

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HUMANE and PROSPEROUS
environment of the future city

STADT will create
smart and inclusive city.

Directions

Head : 618, D-Center1976, 307, Waryong-ro, Seo-gu, Daegu, Republic of Korea

Head Office

D-Center 1976

Daegu Medical Center
Funeral Hall

Daegu Medical Center
Health Promotion Center
Respect for Life Center

Daegu Medical Center
Rafael Wellbeing Center

Waryong
Intersection

T-Station
GS Caltex Koryo 2nd Gas Station

OK Mart

Jungri-dong
Post Office

Business Division : 165, Magokjungang-ro, Gangseo-gu, Seoul, Republic of Korea

Magok M-Valley
Apartment Complex 4

STADT
Business Division/
Research Center

Theme Garden

Starbucks

Gangseo Nonghyup Hanaro Mart
Magok Branch

Wellton Hospital

Botanic
Park Wedding

⑨ Magongnaru

Magongnaru
Neighborhood Park

공항 Magongnaru

Seoul Botanical Garden