

A Space where Virtuality and Reality Become One

# National Digital Twin Platform

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**MOLIT**  
Ministry of Land, Infrastructure and Transport  
**NS Center**  
National Spatial Information Center

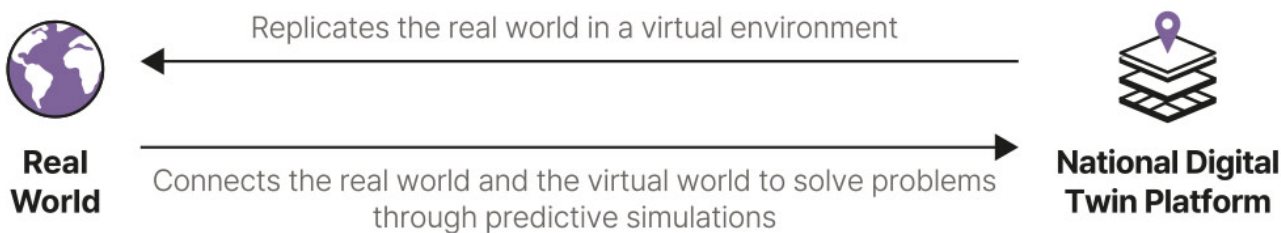
**SPACE<sup>N</sup>**  
Spatial Information Industry Promot on Agency

# National Digital Twin Platform for Korea

MOLIT has integrated scattered digital twin technologies  
into **K-GeoP** and **V-World**,  
establishing a platform that is accesible to all

## What is the DTP?

A platform that **digitalizes the entire nationl territory based on high-presion geospatial data, and resolution of social issues** through integrated information and advanced simulations.



## Application Areas



Ocean



Agriculture·  
Forestry



Cultural  
Heritage



Disaster·  
Environment



Road Traffic



Port

## DTP Linkage System

The government collects geospatial information through the **K-GeoP** and offers it on the **V-World** service making it easily accessible to everyone

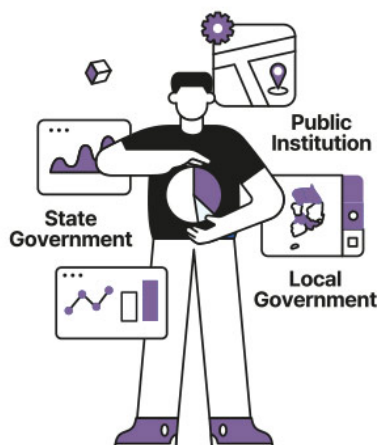
**K-GeoP**

Automated  
Data Integration



**V-WORLD**

### Production

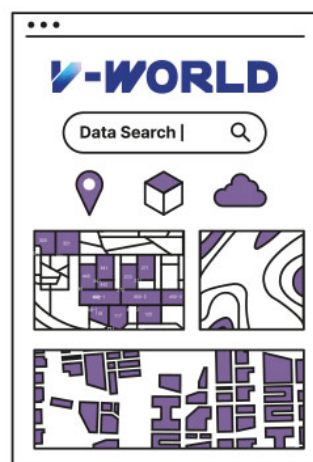


### Collection

**K-GeoP**



### Utilization

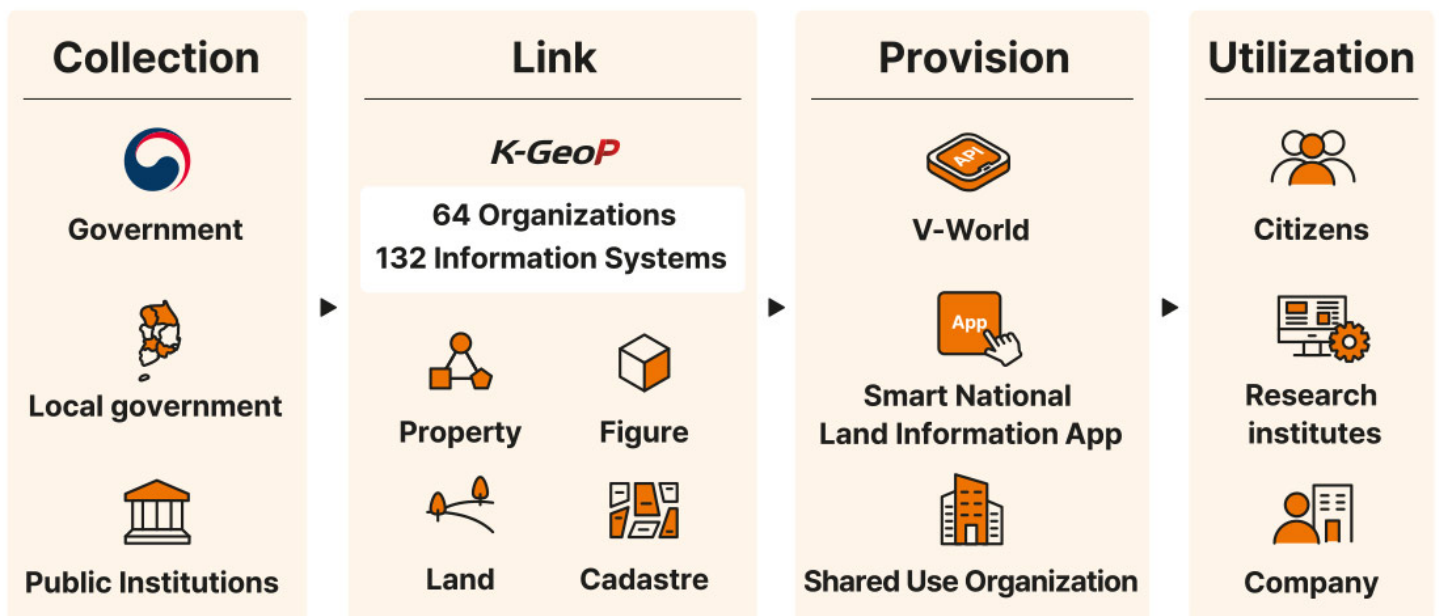


# How do You Use the *K-GeoP*?

It is a data platform  
that **collects and provides national geospatial information**  
**facilitating its use in administrative and public sectors**

## Collection/Provision of Geospatial Information

Collecting geospatial information **for shared use**  
**with other organizations** or **linking/providing it through V-World**

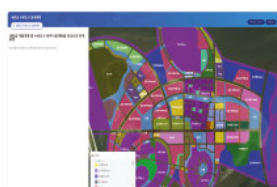


## Analytical Map Production Service

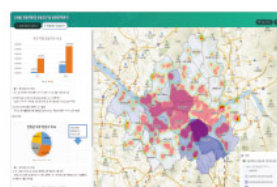
**Provides 2D and 3D-based analysis maps and simulation functions**  
using national geospatial information and user-owned data



Flood Analysis



Urban Planning



Floating Population



Bus Route

## Shared Infrastructure Support

**Provides an environment for developing services** using *K-GeoP*  
infrastructure without the need to develop separate HW and SW  
(GeoPaaS, IaaS)



# How do You Use -WORLD?

It is a service platform that **provides national geospatial information to the public** and **supports the use of geospatial information** in various fields

## Open API / Geospatial Information Download

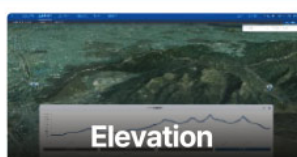
Provides APIs that comply with international standards and data download services **to support the development of geospatial information utilization services in the industry**



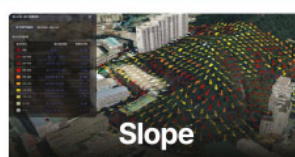
## Analysis and Simulation Functions

By providing analysis and simulation, it **supports decision-making in public administration** and **assists in the development of industry services in the private sector**

### Terrain Analysis



Elevation



Slope



Soil Volume

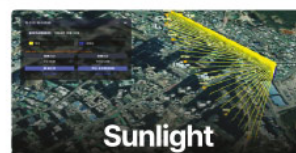
### Building Analysis



Deterioration Level

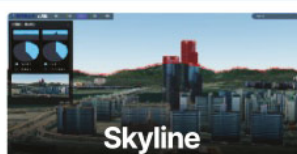


Virtual Building



Sunlight

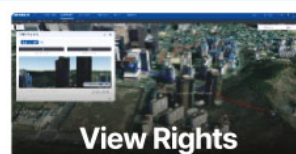
### Landscape Analysis



Skyline

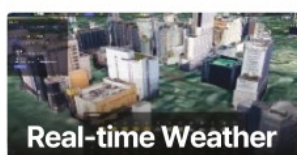


Height Restriction



View Rights

### Weather Analysis



Real-time Weather

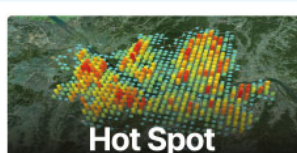


Typhoon Track



Wind Path

### Regional analysis



Hot Spot



Security facilities



Drone-Vehicle Simulation Driving

## Geospatial Information Utilization Coordinator Support

Providing consultation for the necessary technology support for planning and commercializing geospatial information services



Service  
Development



Utilization  
of geospatial Information



Information  
Resources

# What are some examples of using the *K-GeoP* and *V-WORLD*?

## Smart National Land Information App

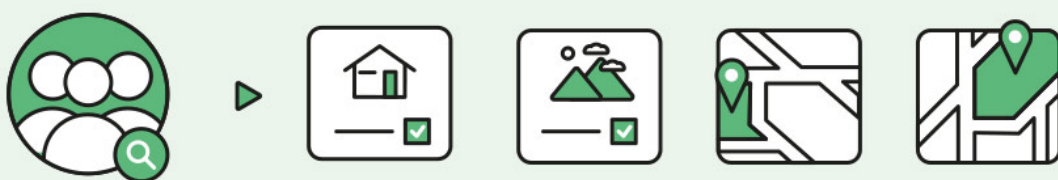
### K-GeoP



- It provides **real estate information such as cadastral and building details** across the country through various IT devices without the need to visit administrative offices

## Finding My Land / Ancestral Land

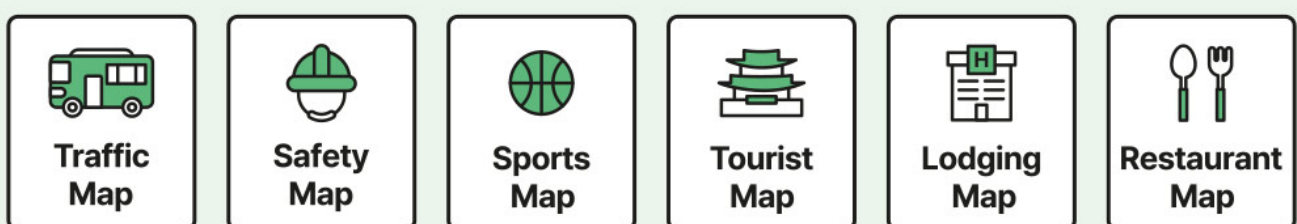
### K-GeoP, V-World



- It provides **an online administrative service** that helps people find and inform them about the land owned by their ancestors or themselves, thereby **ensuring the right to know and protecting property rights of the public**

## Customized Map of the Public Institutions

### V-World



- It provides **a customized map-making service** closely related to civil affairs, administration, and daily life by utilizing national geospatial information and user data

## Support for Spatial Information Service Development

### V-World



- It provides **the technology and services to develop diverse and creative applications** through geospatial information data and open APIs

# The National Digital Twin Platform



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