


Name	National Geographic Information Institute (NGII)
Ministry	Minister of Land, Infrastructure and Transport (MOLIT)
Country	REPUBLIC OF KOREA
Mandate	For the better lives of people, NGII establishes policies related to surveying and mapping, and develops authoritative geospatial information of Korea.
Core Functions	<ul style="list-style-type: none"> - In determining national coordinate reference system, NGII provides high quality information on geodetic surveys - To produce a variety of national geospatial imagery through high-resolution aerial photography technology - To lay the foundation for convergence of various industrial fields through the production of customized maps to serve the diverse needs of people - To monitor national territorial indicator and manage geographical names - To support under developed or developing countries by instructing knowledge and experiences on the establishment of Korea's NSDI
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Logo	



Headline / Key Message

Comprehensive Response to COVID-19 through Open Big Data Policy on the basis of Cooperation among the Diverse Organization

- On January 3, 2020, the Korean government issued the national infectious disease risk alert level to Attention, and began to operate the 24/7 monitoring system in emergency operation center under the Korea Centers for Disease Control and Prevention (KCDC), the map shows the occurrence status of each region and the number of confirmed positive cases on the website.

- To respond to COVID-19, the procedure is divided into screening and diagnosis, epidemiological investigation, patient and contact management, and prevention.

- Among those procedures, testing kits promptly trace and monitor confirmed patients with geospatial information and quickly provide information by open public data while ensuring transparency.

- The COVID-19 Epidemiological Investigation System is a system that automates the process of contact tracing for COVID-19 confirmed cases. The system shows travel routes of confirmed COVID-19 patients on a map that is embedded on the platform, and also provides related statistical information with big data.

- NGII provides the source of map to the government's epidemiological investigation system for being used as background map to show the routes of confirmed cases.

- The COVID-19 Epidemiological Investigation System uses the smart city data hub as an analysis tool.

- * *Smart City Data Hub* : An analysis for large-scale city data, it analyzes the big data related to various areas such as transportation, energy, environment, and safety in real time and uses them to realize smart city services.

- Data such as location of the confirmed patient's routes, building data, hospital information, and status information of the selected clinic are utilized and the system provides the result of analyzed data of the travel routes of confirmed patients and hotspots by processing and analyzing the information input into system.

- The system is successfully being operated by the partnership of different fields, such as the National Police Agency, the Credit Finance Association, 3 mobile carriers and 22 credit card companies.



- Open portal site



(Korean) <http://ncov.mohw.go.kr/>

(English) <http://ncov.mohw.go.kr/en>

- The COVID-19 Epidemiological Investigation System (only useful through governmental intranet)



▲ System Log-on

▲ Example of Patient Travel Route Information

▲ System Operation and Statistical Analysis

▲ Confirmed Patient Stats Analysis

- The COVID-19 Epidemiological Investigation System identifies mainly the path of confirmed patients quickly by executing real time big data analysis of the movement history and credit card usage data of the confirmed patients.
- The COVID-19 Epidemiological Investigation System developed by the Ministry of Land, Infrastructure and Transport (hereinafter 'MOLIT') and is being co-operated by MOLIT and Korea Centers for Disease Control & Prevention.
- Also with the partnership of the national police agency, the credit finance association, 3 major mobile carriers, and 22 credit card companies, the system identifies the transmission path and hotspots by analyzing the provided geospatial information.

- [Open Data Policy] NГИI mainly contributes to COVID-19 response by open data to the public for free of charge. It helped the private sector making diverse applications promptly and broadly.

- [Data Integration] To create a platform environment focused on sharing, linkage and convergence through the latest ICT technology.
 - Improve the level of citizens' technology by continuously improving the quality of geospatial information and providing various map portal services in the private sector.

- [Engagement] The government actively opened public data on people's daily lives including confirmed case of COVID-19 in Korea and overseas (via homepage of local government, public data portal, etc.). Based on this, citizens and companies are generating public data to share it with people.

- [Partnerships] It is establishing a governance system based on horizontal cooperation between governments, telecommunications companies, credit card companies, and citizens.

