


Geospatial
Information Hub of
Korea

V a l u e C r e a t o r

National Geographic Information Institute

A large, stylized image of the Earth from space, showing the Americas, is positioned on the left side of the lower half of the cover. The image is rendered in a blue and white color scheme, with a grid of latitude and longitude lines overlaid. The background of the entire lower half is a solid blue color.

**NATIONAL
GEOGRAPHIC
INFORMATION
INSTITUTE**

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A mountain, soaring to the sky, is like a father to us.

A river, running across the endless plain, is like a mother to us.

A street, leading us to our destination, is like a friend to us.

Land, that we look out and care for constantly, is like a child to us.

A home, presenting warmth and relaxation, is like a spouse to us.

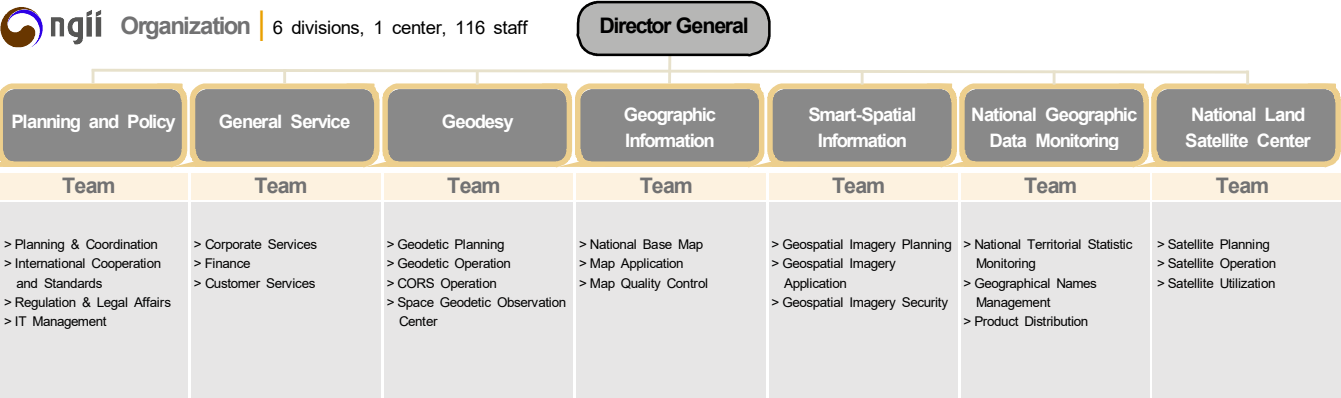
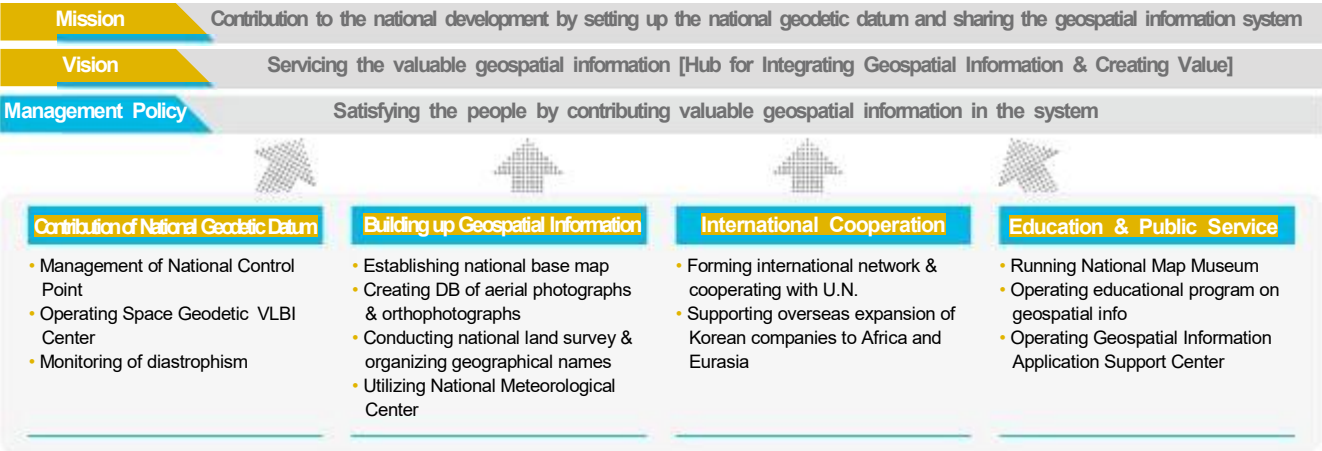
[Vision]

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NGII serves the most valuable geospatial information

as the name of the Korean geospatial information hub

• •



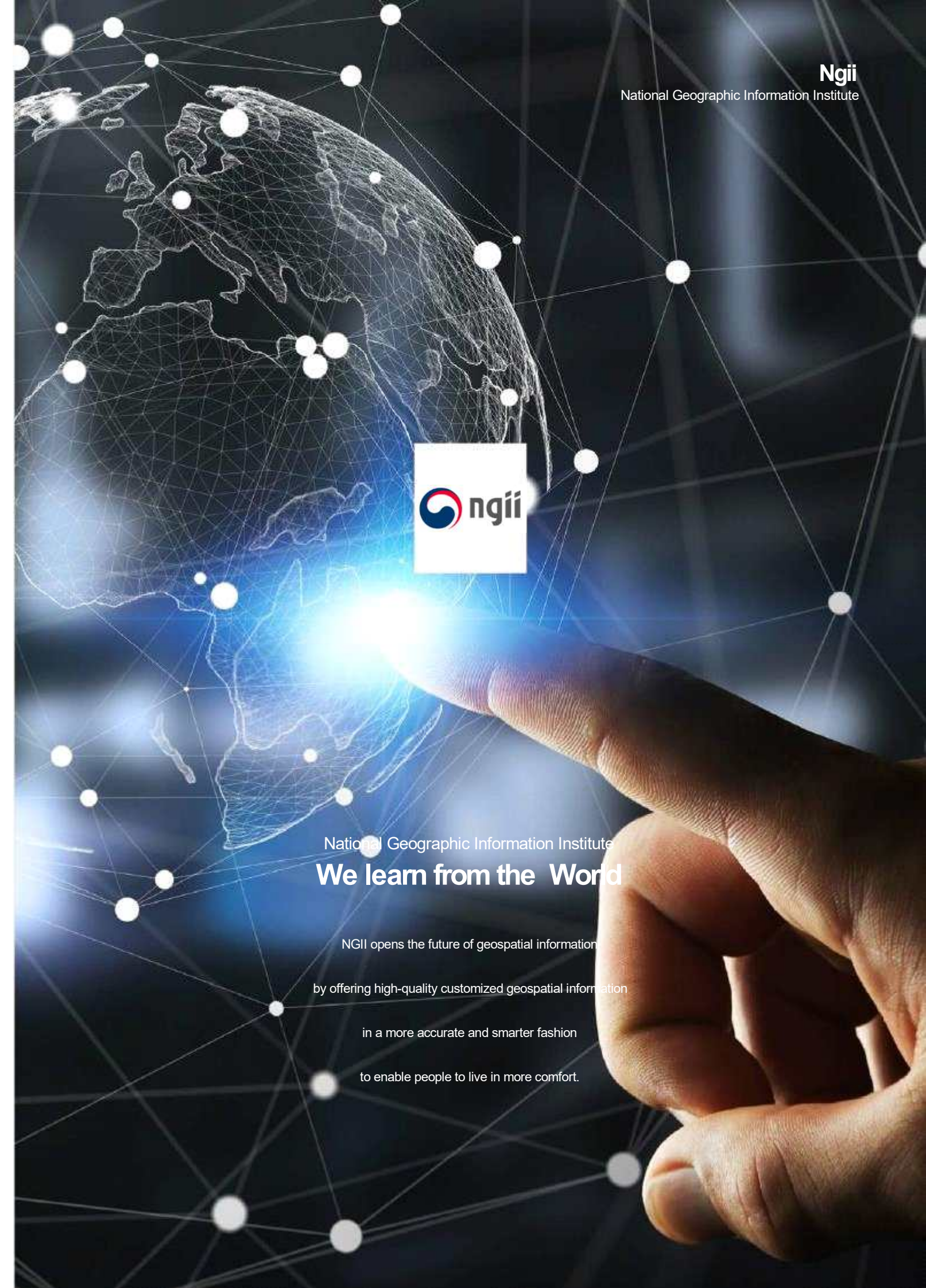
We have mapped a chain of mountains,
the flow of the river, the street, and the land,
the houses and the buildings
but still, we wish to map the heart of warmhearted people.

Where there is the history of NGII,
there is the bright future of Korean geospatial information



Established as the National Geographic Institute under the Ministry of Construction in 1974, the institute has shown its commitment to geodesy and mapping while striving to develop the geospatial information industry. It is the main government source for building a DB on geospatial information infrastructure to provide useful geospatial information to the public and strengthen national competitiveness in the Fourth Industrial Revolution age.

- 2022
 - Launched the Korean Land Satellite 1
 - Served geospatial Information for free
 - Mapped the precision road for the automatic vehicle
 - Participated in the African Minerals Geoscience Initiative (AMGI) project
 - Operated the Eurasian SDI (Geospatial Data Infrastructure) Initiative
- 2010
 - Began making seamless digital maps
 - Hosted UN Forum on GGIM (1st High Level Forum on UN-GGIM)
 - Started operation of the Space Geodetic VLBI Observation Center
- 2000
 - Mapped the Antarctic area in 1/1,000, 1/25,000 scale
 - Hosted the 13th PCGIAP Conference
 - Inaugurated the National Map Museum
- 1990
 - Started production of digital topographic maps on scale of 1:1,000, 1:5,000 & 1:25,000
 - Elected executive board member of Permanent Committee on GIS Infrastructure for Asia and Pacific (PCGIAP)
 - Started offering digital topographic maps to private sector
- 1980
 - Began Mapping Dokdo
 - Joined International Society for Photogrammetry and Remote Sensing (ISPRS) & International Cartographic Association (ICA)
 - Established Korean geodetic horizontal origin point (National Geographic Institute Notification No. 57)
- 1970
 - Started production of topographic maps on scale of 1:5,000, 1:25,000 & 1:50,000
 - Signed agreement on exchanging maps with U.S. and established Korea-Japan conference on cooperation in geodesy and cartography
 - Joined U.N. Group of Experts on Geographical Names (UNGEGN)
- 1960
 - Joined International Association of Geodesy (IAG) and International Union of Geodesy & Geophysics (IUGG)
 - Legislated Land Survey Act (Law No. 938)
 - Established Korean geodetic vertical origin point



National Geographic Information Institute
We learn from the World

NGII opens the future of geospatial information
by offering high-quality customized geospatial information
in a more accurate and smarter fashion
to enable people to live in more comfort.

[Message]

• •
For the Fourth Industrial Revolution, National Geographic
Information Institute (NGII) will make its national geospatial
information highly competitive in the world
• •

Until everyone is satisfied with our geospatial information!

National Geographic Information Institute is doing its best around the clock.

We collect valuable geospatial information as a proactive response to rapidly changing technologies such as IoT,
artificial intelligence and self-driving vehicles.

We contribute to economic recovery and job creation by providing valuable geospatial information.

We strive to go forward by strengthening our global competitiveness and taking a leap forward as a
global think tank that produces world-class geospatial information

Executives and staff of National Geographic Information Institute



Ngii
National Geographic Information Institute

NGII provides valuable geospatial information to people.



The National Geographic Information Institute is a government-run organization with a vision to produce valuable
geospatial information by establishing geographical maps and relevant standards.

The institute has built trust in various spheres from forming the national geodetic datum and
geospatial imagery information to mapping, administration of geographical names,
international cooperation and public service.

We learn from the Mountains



National Geographic Information Institute hopes to become a hub of geospatial information of Korea through the establishment and operation of a national geodetic datum

“How convenient and reliable to know where our country, hometown and house are located through advanced geospatial information based on exact national reference coordinates.”

Hallasan Mountain,
1,947 meters high
NGII staff surveyed
the height of this mountain and
drew it on the map.
And NGII staff know that
a father's love for his family
transcends the peak of Hallasan Mountain.

In determining national coordinate reference system, NGII provides high quality information on geodetic surveys

All geospatial information is based on accurate position data. National Geographic Information Institute sets the national coordinate reference system through state-of-the-art technologies in the field of space geodesy and offers location based services to various fields such as civil engineering, precision agricultural applications and cadastral surveying.

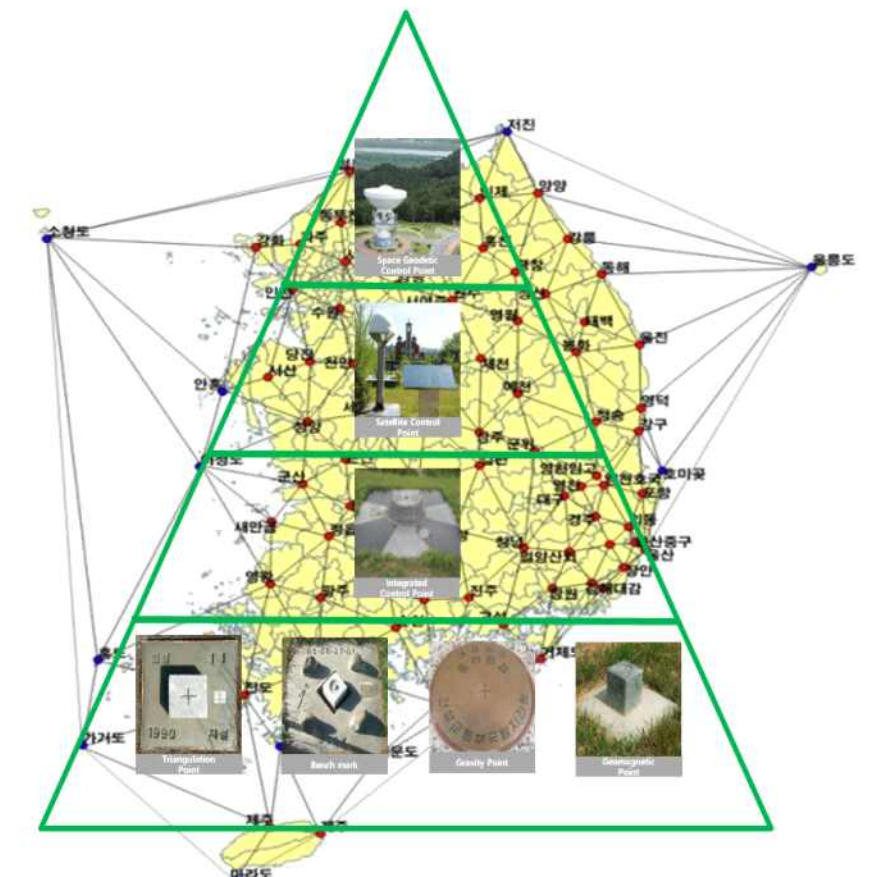
Korean Geodetic Datum

- Horizontal Datum: Establishing the national geodetic horizontal origin point in accordance with the World Geodetic Reference System (ITRF2000 & GRS80) and installing space geodetic control points, CORS, integrated control points and triangulation points.
- Vertical Datum: Determining the height of the national vertical origin point (Inha Technical College) as 26.6871meters based on the mean sea level of Incheon Bay and installing integrated control points and bench marks.

National Geodetic Datum

- Establishing and maintaining national control points nationwide (horizontal and vertical position) by using the state of art geodetic technologies.
- National control points are mainly used for civil engineering (measurement for construction) and, also applied to the earth diastrophism and real-time location based service.

Hierarchy of National Control Point



Space Geodetic Control Point (Geodetic VLBI: joint VLBI observation of globe)

Space Geodetic Observation Center

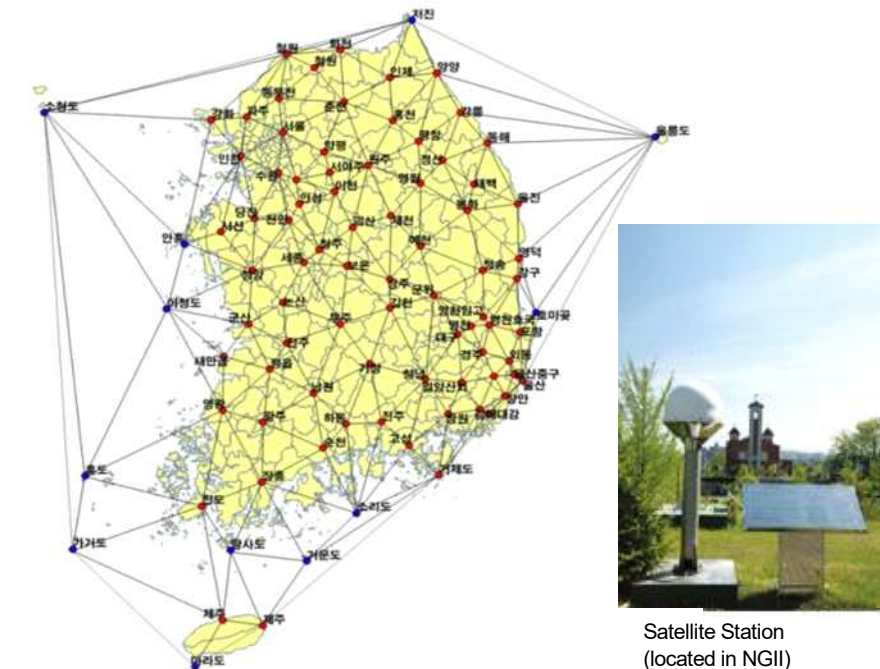
- Calculating positions by interpreting the time difference between the radio waves from quasars billions of light years away to radio telescopes (antennas) on Earth.
- Equipment:
 - Antennas: 22meters in diameter
 - Receivers: 2, 8, 22, 43 GHz
 - Backend: Hydrogen clock, operation control, data processor and more
- Activities: Performing IVS routine observation after becoming official member of IVS Council at its seventh meeting (March 2012) and performing joint observation with Japan, as well as with Korean astronomy research institute KVN.



Satellite Control Points (GNSS observational stations: provision of satellite geodetic service)

Operation of 85 Satellite Control Points

- Receiving and providing GNSS satellite signals 24/7 to provide autonomous geospatial positioning.
- 85 GNSS control points established nationwide since 1995.
- Providing one-stop national GNSS data service by integrating GNSS CORS separately operated and controlled by eight government departments.



Real-time kinematic (RTK) Positioning Services

- Available after obtaining Network RTK membership at Geospatial Information Service Platform.



Post-Processed GNSS Data (RINEX)

- Download available from Geospatial Information Service Platform (map.ngii.go.kr).

Integrated Control Point

- No. of control points: 5,500
- Information provided: Geodetic and geocentric coordinates, height and gravity value



Gravity Point

- Korean geodetic gravity origin: 979,918.775±0.0001mgal (located in NGII)
- No. of absolute gravity points: 20
- Use: Datum development, national monitoring, etc.



Triangulation Point

- No. of triangulation points: 16,412
- Information provided: Geodetic and geocentric coordinates
- Type of triangulation point: 1st, 2nd, 3rd or 4th grade



Geomagnetic Point

- No. of geomagnetic points: 30
- Information provided: deflection angle, magnetic dip and horizontal component
- Use: Studying horizontal distribution and secular variation of geomagnetism and regional magnetic anomaly



Bench mark

- No. of bench marks: 7,300 (1st grade: 1,141 and 2nd grade: 6,155)
- Type of bench mark: 1st or 2nd grade
- Accuracy: 1st grade = ±2.5mm√S(roundabout) and 2nd grade = ±5.0mm√S(roundabout)





The Han River,
the source of drinking water

for most Koreans

NGII staff measured
the river's length and drew it on the map.

And NGII staff know that

a mother's love for her child

is clearer and more transparent than the Han River.

We learn from the Rivers



National Geographic Information Institute hopes to become a hub
of Korean geospatial information
through building up national geospatial imagery information.

"Taking pictures all around the Korea from high up in the blue sky!
Building up the realistic imagery information system leads to higher quality maps."



NGII produces a variety of national geospatial imagery through high-resolution aerial and space photography technology

The national geospatial imagery information system is essential for mapping. National Geographic Information Institute is recording the changes of national landscape through photography, while implementing aerial photography, production of orthophotos and use of the digital elevation model, all of which will be utilized in the production of a national base map. Utilization of the recently launched Korean Land Satellite also provides high resolution ground observation image aiding in effective national land use management, disaster response, industry support and so on.

Aerial Photography

■ NGII carries out the aerial survey to build up the whole aerial photography DB of 12cm and 25cm resolution every 1 year (urban and rural area).

Degree of photo overlapping
horizontal overlapping over 60%
vertical overlapping over 30%

Altitude
2,000 ~ 3,000meters

No. of images possessed
1940-60s: 78,091
1970-90s: 107,763
2000-present: 709,018

Zone 1 Zone 2



Detecting the change of urban area
and geographical features

■ NGII builds up the time series aerial photography DB and orthogonal imagery DB to detect the change of urban area and geographical features.

■ The aerial photography has been applied to the various systems such as internet portal maps, especially for use in civil affair documents and court-submitted documents.



Korean Land Satellite 1

Satellite Characteristics

- Land Satellite contributes to the areas of effective national land use and management, disaster response, industry support.



Size/Weight	1.4m x 1.55m x 2.89m / 500kg
Mission Track/Life	Approximately 500km solar synchronous orbit (polar orbit) / 4 years
Resolution/Observation Width	Black & White 0.5m (1 band), Color 2m (4 bands) / 12km
Spectral Resolution (bandwidth)	4 Resolutions (Blue, Green, Red, near-infrared) / 450~900nm
Mission	Production of precise ground observation image for national land & resource management, disaster response, national spatial information utilization
Observation Area	Entire Korean Peninsula (800km x 1000km), Polar regions, overseas area

- Application:
 - Establishing spatial information of the entire Korean Peninsula by using the Land Satellite
 - Monitoring of damaged area in case of natural disaster and effective rescue and recovery by using spatial information
 - Constructing 3D spatial information by converging satellite image, 2D information and DEM
 - Monitoring changes by region/period and provide quantitative/qualitative information

Information Output Sequence

Level 0 Directly Received Image	<ul style="list-style-type: none"> Directly received data(Level 0) after satellite image shooting
Level 1 Standard Image	<ul style="list-style-type: none"> Basic image that corrects distortion caused by satellite characteristics from data (Level 0) Location accuracy of 30m
Level 2 Satellite Orthogonal Image	<ul style="list-style-type: none"> Precision geometric calibration using Ground Reference Point (GCP Chip) and precision calibration using precision DEM data in standard image Location accuracy of 1~2m
Level 3 Satellite Image Map and Other Outputs	<ul style="list-style-type: none"> Mosaic video and video map Digital Elevation Model (DSM/DTM) National Land · SOC object and land theme maps

Orthogonal Imagery DB

- NGII builds up the orthogonal imagery DB through the annual aerial photography done through the ortho and radiometric correction.

The nationwide digital aerial photography (since 2004)



The nationwide orthogonal imagery (since 2010)



- Services:
 - Open API: Available after issuing authentication key by registering as authentication user at Geospatial Information Service Platform (map.ngii.go.kr)
 - Web Service: Available from Geospatial Information Service Platform (map.ngii.go.kr)

Digital Elevation Model

- NGII establishes the relief displacement of geography into a digital elevation model on a 1m x 1m, 5m x 5m or 10m x 10m grid by using aerial images, LiDAR and digital topographic map



<3-D Geospatial Information>

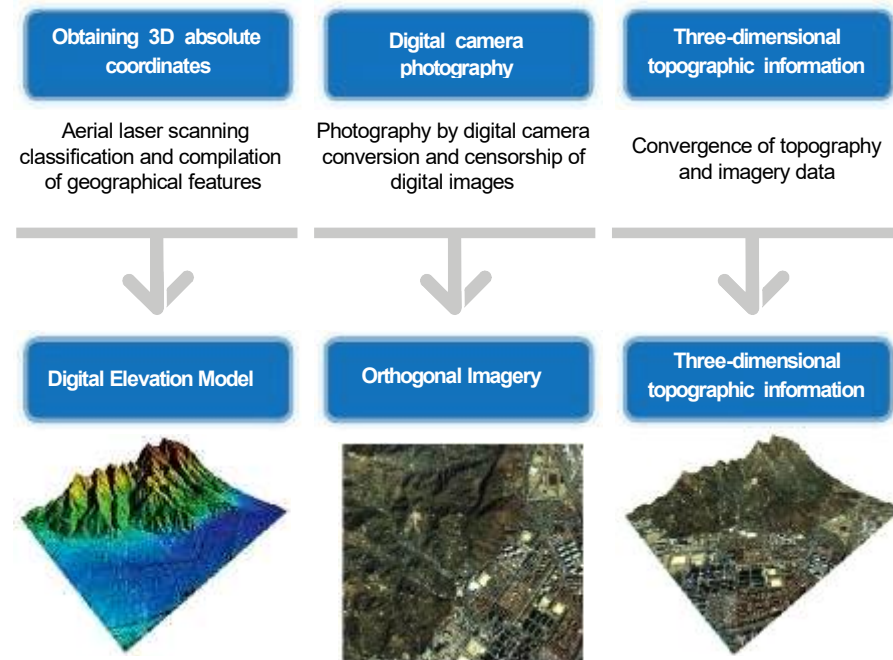
<DSM>

<DEM>

- The DEM is utilized in fields such as earth volume calculation, topographic analysis and selection of appropriate land.

1x1m	5x5m	10x10m	90x90m
Seoul, Gyeonggi Province and parts of six metropolitan areas (not open to public)	Entire country (not open to public)	Entire country (not open to public)	Entire country (open to public)

Convergence of Digital Elevation Model and Orthogonal Imagery Map



Utilization of Drones

- NGII shares geospatial information related aerial photography acquired by drone flight to middle, high school and university students
- NGII operates unmanned aerial vehicle (UAV) to quickly obtain images in case of disaster and provides data to relevant organization for damage restoration



Fixed wing UAV

- Dimensions: 1.2meters (width) x 42cm (length) / 1.2kg
- Flying altitude / speed: 100~1,200meters / 50km/h
- More stable to operate than rotary wing drones yet require sufficient landing space



Rotary wing UAV

- Dimensions: 1meter x 1meter x 45cm / 3.5kg
- Flying altitude / speed: max. 1,000meters / 40km/h
- Fewer limitations on takeoff and landing yet substantially affected by weather

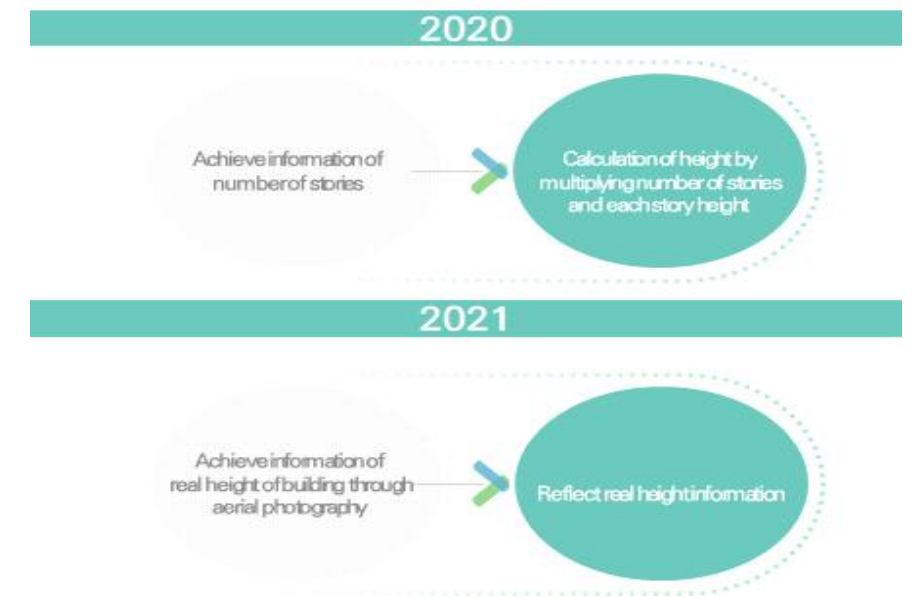
Imagery Correction for Security

- NGII resolves security problems by deleting, adjusting the resolution of or blurring national security-related facilities in aerial and satellite images captured by a public institution or private entity

National Geospatial Imagery (Completed in June 2021)

National Geospatial Imagery

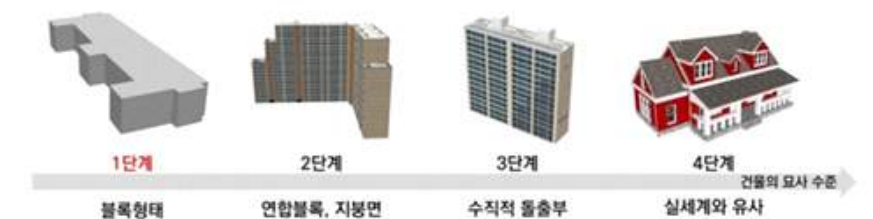
- Construction of 1m resolution DEM of national urban area for providing a foundation of digital twin



3D Building Modelling

- 4 Steps for 3D Building Modelling

1. Block Form
2. Combined Block and Roof
3. Vertical Projection
4. Real World Simulation



3D Building Imagery Near NGII



NGII Staff measured
and shared the geospatial information of
Gyeongbu Expressway
the longest expressway in Korea
And NGII staff also know
that having a good friend
to walk together through the journey of life
is just as of great value

We learn from the Streets



National Geographic Information Institute hopes to become
a hub of Korean geospatial information through mapping.

“Traveling around the nation and adding more geospatial information for
making the Daedongyeojido of the 21st century!
The future competitiveness of Korea will get stronger.”



NGII lays the foundation for convergence of various industrial fields through the production of customized maps to serve the diverse needs of people

A map is a fundamental infrastructure for the decision making of national territorial policy. National Geographic Information Institute produces a range of maps from paper maps and 3D geospatial information to new concept of national Internet maps and POI (Point of Interest) which converges with other information.

Large-scale Digital Topographic Map (1:1,000)

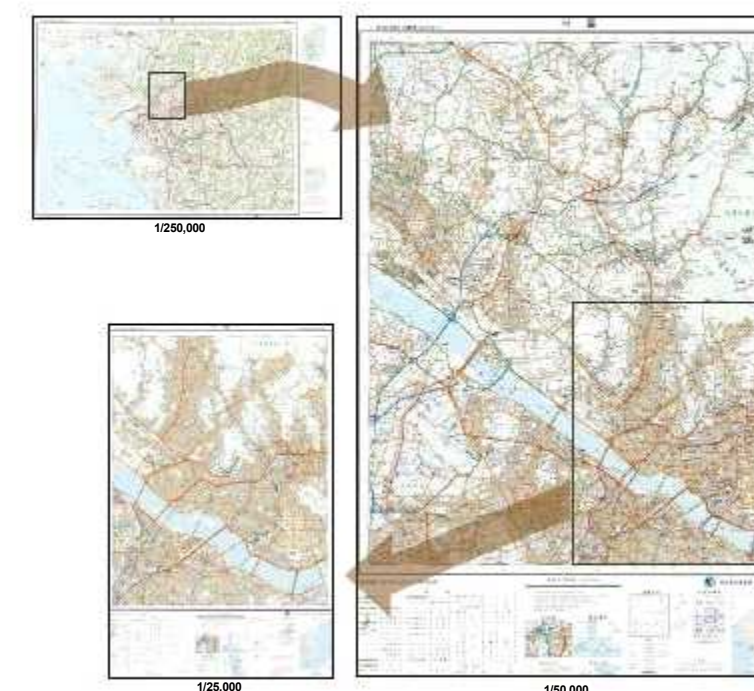
- Producing digital topographic maps through matching funds (50:50) with local governments for urban areas
- Produced maps for 82 cities spanning approx. 9,000km² and suburb areas spanning 50 km²

National Base Map (Digital Topographic Map on scale of 1:5,000)

- Revising all information on national base map every two years while important data such as large buildings and roads are revised every two weeks
- No. of map: 17,661 sheets

Paper Topographic Map

1:25,000	1:50,000	1:250,000	Complete Map of Korea
812 sheets	241 sheets	26 sheets	1:1 million 1:1.2 million 1:2 million



Complete Map of Korea



Map of Korea and Vicinity



Braille Map

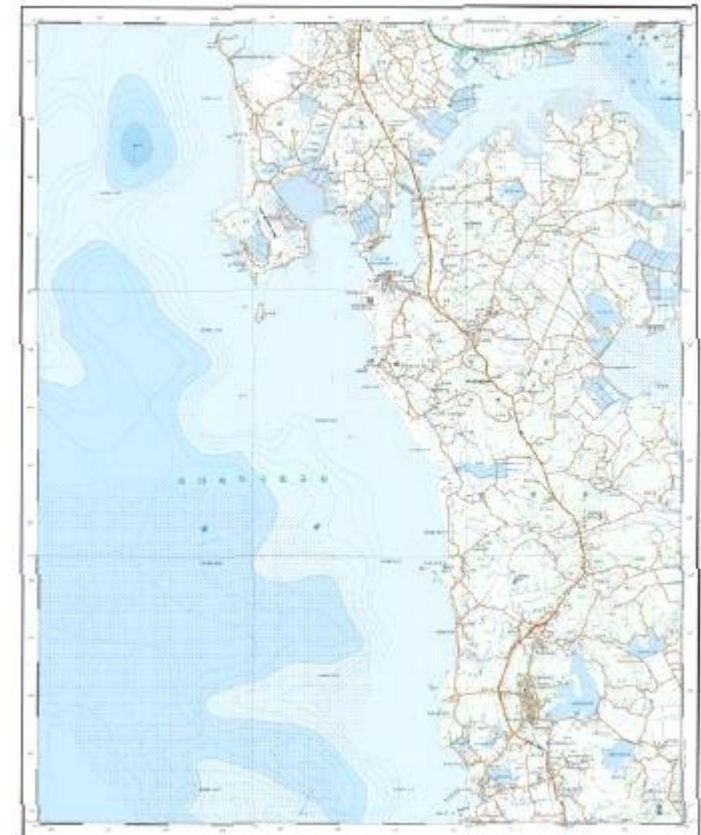
- Map targeted for the visually impaired
- Produced from 2014 and onwards
- Types of Braille Map include : Natural Topography, Livelihood, Traffic Information Administrative District, Tourist Attraction, etc.

OnMap

- Concept maps easy to use by all ages
- Providing 1:5,000, 1:25,000, 1:50,000, 1:250,000 scale maps in geo PDF format

Coastal Area Base Map

- Producing 1:25,000 scale topographic maps including coastal areas with water depth and sediments information displayed



World Map

- Projection: Producing world maps in Korean using Mercator's, Robinson, Eckert's, WinkelTripel and Goode homolosine projections
- Multiple languages: Producing world maps in English, French, Spanish, Portuguese and Arabic using Robinson projection

Robinson Projection



Mapping of North Korea

<Production Status (late 2016)>

- NGII digitally maps North Korea using satellite image in 1:25,000 scale and major areas of North Korea in 1:5,000 scale

1/5,000	1/25,000	1/50,000
254 sheets	2,525 sheets	557 sheets

(Pyongyang)



<Orthogonal Imagery Map>



<1:25,000-scale Topographic Map>

National Internet Map and Points of Interest (POI)

- Producing internet maps and POI information for national base map to serve background maps used for public and private sectors
- No. of POI: 10 million
- How to use:
 - Open API: Available after receiving authentication key by registering as authentication user and institution at Geospatial Information Service Platform
 - Free data: Fill out application form → Receive data
 - Data request process: Submit application form (email or public document) → examine → offering data



Geospatial Information of North & South Poles

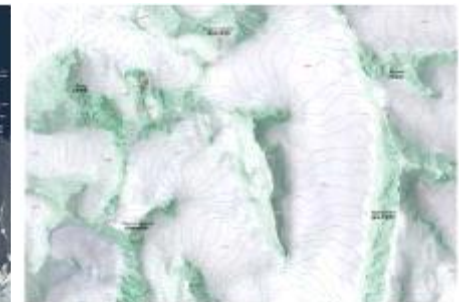
- NGII had built the control point around scientific station in Antarctica in 2009, and mapped the whole Antarctic area in 1:1,000, 1:5,000 and 1:25,000 scale while officially registering Korean original place names in 2011 and 2012



- NGII had mapped the Arctic area in 1:5,000 and 1:25,000, built up the orthogonal imagery and digital elevation models since 2014 for supporting the exploration of Arctic resources



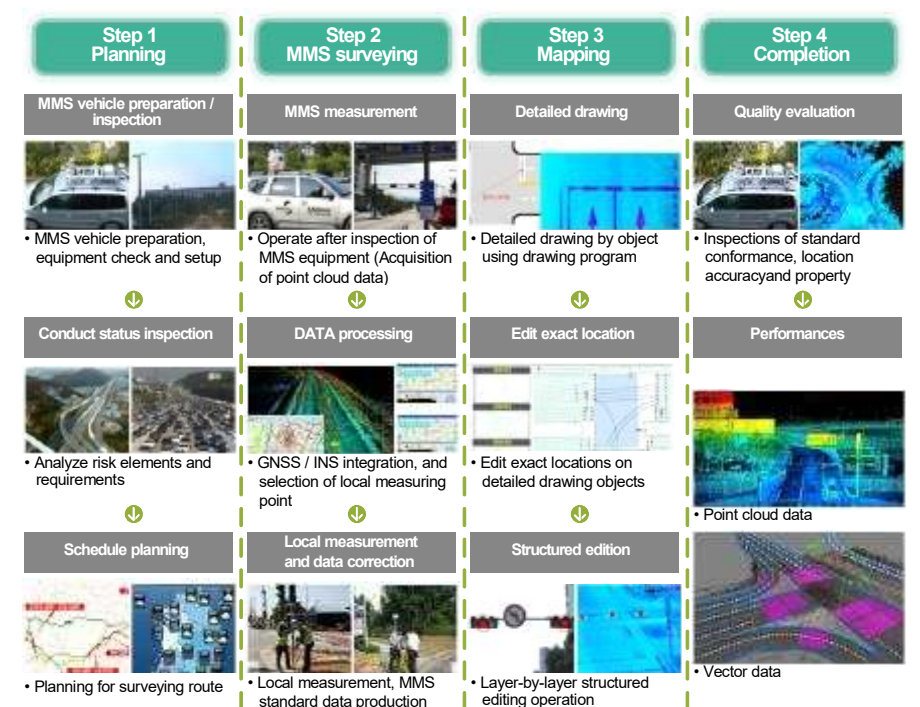
<Svalbard islands orthogonal image on scale of 1:5,000>



<Svalbard islands digital topographic map on scale of 1:25,000>

High Definition Road Map

- Producing High Definition Road Map for commercialization of autonomous vehicle since 2015 which accurately describes roads and surrounding facilities.



Honam Plain,
the largest plain in Korea

NGII measured
the size of the plain and added
its geospatial information to map.

NGII also believe that
our land will become the land of milk and honey,
so that it will produce the bread of life for our children and
provide strong energy.

We learn from the Land



National Geographic Information Institute hopes to become
a hub of Korean geospatial information through land surveying
and administration of geographical names.

“Possible in Republic of Korea, a country with a strength in national geographic information can you
find out how many rice paddies and mountains are in your home town with just a few clicks.”



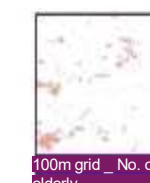
Monitoring national territorial indicator and management of geographical names

Accurate measurement and statistics are the cornerstone of future competitiveness. National Geographic Information Institute is also researching population, economy, society, culture and land use to support the formulation of policy toward national territory while modifying geographical names nationwide.

Land Surveying

Provision of Statistic Information
from Land Surveys

■ Studying 180 national territorial indicators including population, buildings and land to be utilized as policy making data and to provide statistics analysis of the indicators through grid charts.



Management of Geographical Names

- Legislating new geographical names continuously through Committee of Geographical Names and modifying geographical names in North Korean and Japanese styles
- No. of notified geographical names: Approx. 150,000
- Notifying geographical names from National Geographic Information Institute through deliberation of Regional Committee of Geographical Names after final decision made by National Committee of Geographical Names
- Issuing and distributing *Origins and History of Geographical Names* to improve cultural and economic values as well as arrange historical process of changing geographical names
- Managing notification of geographical names by the operation of Geographic Names Management system and supporting work convenience of person in charge of geographical names at local government office by sharing materials of geographical name standardization and modification

International Activity for the correct use of Korea's geographical names

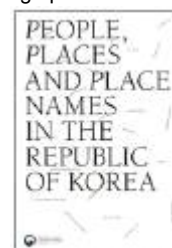
- Joining U.N. Conference on the Standardization of Geographical Names (UNCSGN) and U.N. Group of Experts on Geographical Names (UNGEGN), currently both conferences are combined into UNGEGN
 - Participating in conferences of experts worldwide on international geographical names to collect information and seek cooperation with international organizations for further management of and policy research on Korea's geographical names
 - Raising global awareness of Korea's geographical names by publicizing accomplishments and achievements of NGII activities on popularization and standardization of geographical names



Distribution of Toponymic Guidelines for Map and Other Editors for International Use

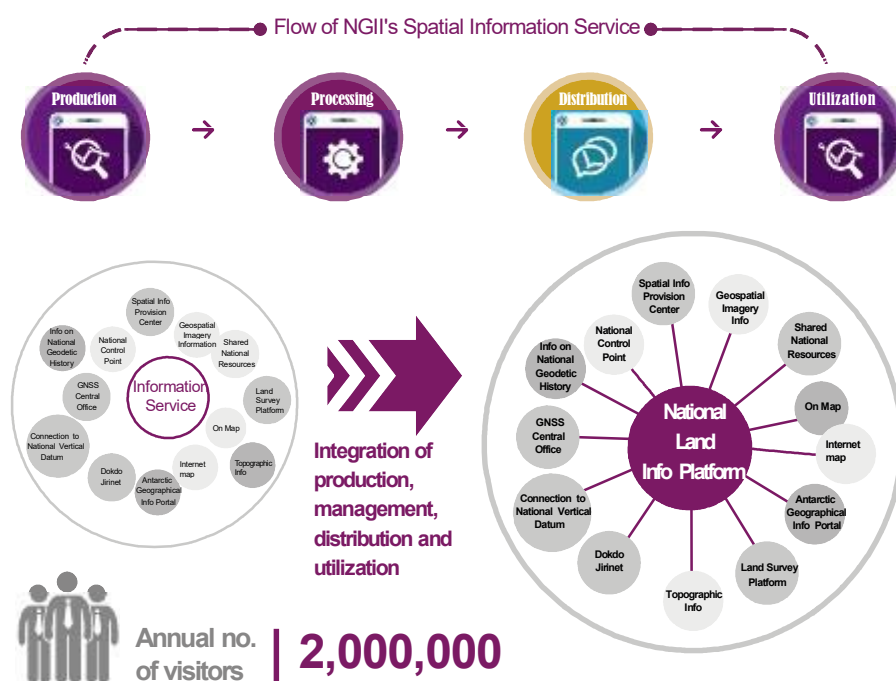


View of UNGEGN conference



Distribution of publications introducing Korea's geographical names

- Summary: Web service that provides 57 kinds of geospatial information produced or possessed by NGII



- Platform service contents
 - Download Service: Every geospatial information produced by NGII such as digital maps, aerial photos and national control points
 - National geospatial information: data on geographical names, GNSS surveying, topographical features provided through Geospatial Information Service Platform
 - Business support: Supporting service for business such as surveying instrument performance testing, public surveying management, study and reports on surveying marker points and qualification examination

- A list of downloadable Geospatial Information for free

Classification	Type
Digital Map	Digital Topographic Maps V1.0 (1:1,000, 1:2,500, 1:5,000, 1:25,000, 1:250,000 scales)
	Digital Topographic Map V2.0 (1:1,000, 1:2,500, 1:5,000 scales)
	The Nationwide Seamless Digital Maps (1:5,000 scale)
	Map of Land Characteristics (1:1,000, 1:5,000 scales)
	Land Use Map (1:25,000 scale)
	Base maps for coastal waters (1:25,000 scale)
	Basic Geospatial Information (1:5,000 scale)
	Digital Map of North Korea (1:25,000 scale)
OnMap	Precision Road Map (1:500 scale)
	1:5,000, 1:25,000, 1:50,000 and 1:250,000 scale World Map, Korea's Complete Map and Map of Korea and Vicinity
Control Point	Triangulation Point
	Bench mark
	Integrated Control Point
National Geospatial Imagery	GNSS Observational Station (RINEX Data)
	Aerial Photograph
	Orthophotograph
Old Map	Open DEM
	Old Topographic Map
	Topographic Map before Independence Day
Others	Old Western Map, Modern & Contemporary Map, Old Japanese Map, Old Korean Map
	Dokdo Geography, Korea Geography
	Toponymic Guidelines for Map and Other Editors: For International Use, Origins and History of Geographical Names
	Korean History of Cartology Development
	National Atlas
	World Map, Map of Korea and Vicinity
	Complete Map of Korea
Open API	Internet Map (Background Map), POI (Search API), Imagery Map (Background Map), Control Point (Location Information), Geographical Names (Location + Property), Statistical Map (Map)

Publication of National Atlas of Korea

Vol. 1 (Territory & History)

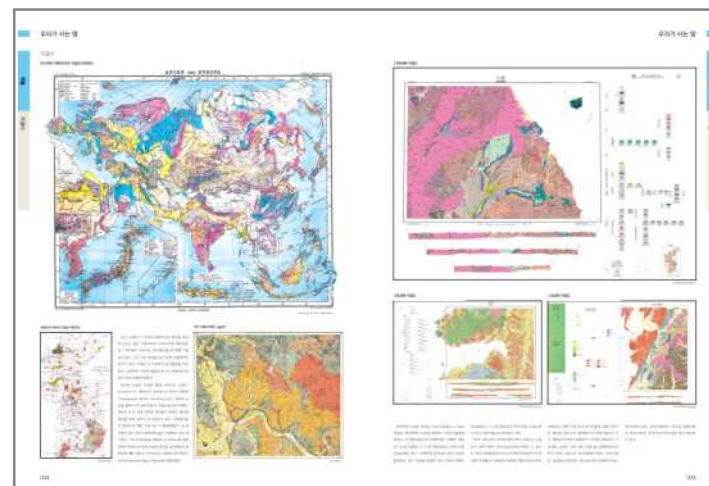


- Publishing National Atlas of Korea by combining maps with statistical information on territory and natural and human environment and distributing it to major organizations, universities and libraries around the world to boost Korea's global exposure and standing



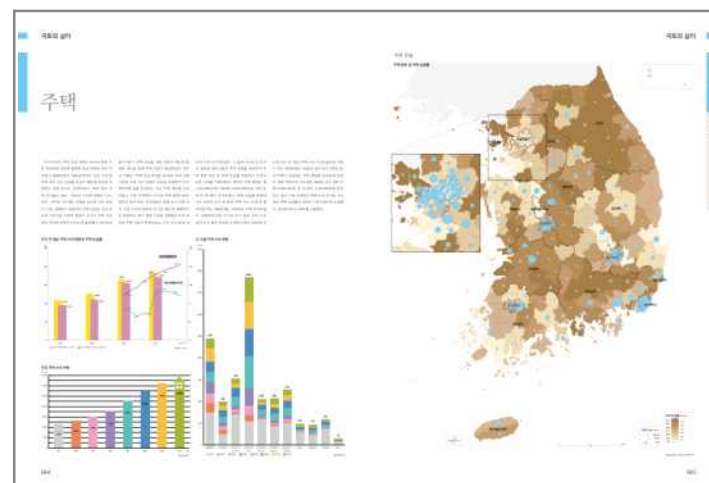
<Territory and territorial waters of the Republic of Korea>

Vol. 2 (Land & Natural Environment)



<Geological history>

Vol. 3 (Land & Human Environment)



<Housing status>

Card News

1	2
3	4

“ The greatest map in the history ”

A great man sacrificing his everything for the people, leading them to the right path

Daedongyeojido, Kim Jung-ho
(pen name Gosanja)



The map of Korea resembles the 60 years of Kim Jung-ho, aka Gosanja

National Geographic Information Institute, going the same way with the history of the map of Korea since 1958, is going toward the era of the Fourth Industrial Revolution from analog to digital.

Resemblance to the self-innovation achieved by Kim Jung-ho, aka Gosanja, and his lifetime



Technology to hold the world in your hands

National Geographic Information Institute, after receiving technical assistance from the Netherlands, completed a 1:25,000-scale map of Korea after nine years. Currently, anyone can see the world with geospatial information accurate to the mm scale.

Average no. of cases in providing geospatial information per annum: approx. 8.3 million

No. of digital topographic maps : approx. 7.7 million
No. of aerial photographs : approx. 60,000
No. of orthophotographs : approx. 200,000
No. of national control points : approx. 100,000
No. of OnMap, paper maps, precision road maps and old topographic maps : approx. 240,000

Average no. of visitors to National Map Museum per annum: approx. 30,000

Future Gosanja

National Geographic Information Institute, based in Suwon, Gyeonggi Province, as an affiliate of the Ministry of Land, Infrastructure and Transportation, is continuing the passion of Kim Jung-ho Kim aka Gosanja.

The future Gosanja who opens the path of the earth and sea, the sky and universe, begins here.

Detached homes and apartments,
the most common housing types in Korea

NGII staff organized
the sizes of these houses as well as
geospatial information on various buildings.

And NGII staff know that
the reliability of information on these homes and
buildings is important like a spouse or life companion.

We learn from the Houses



National Geographic Information Institute hopes to become
a reliable house of Korean geospatial information through
international cooperation and public service.

“NGII seeks to resolve global issues in geospatial information together with the
7.5 billion people across the globe, while seeking a brighter future for Korea's
geospatial information through National Map Museum and On Map Contest.”



NGII is striving to propagate knowledge and experience of the establishment of geospatial information to less developed countries

Korea started producing maps in 1966 through support from the Netherlands. Thanks to its continuous technological development, Korea can now pass on its knowhow to the world, while helping domestic companies expand overseas. Moreover, National Geographic Information Institute is providing a public service by running the National Map Museum, education programs on geospatial information and the Public Support Center.

International Cooperation

■ Bilateral Meetings:

- Korea-Japan : In accordance with the decision reached at science and technology ministers' meeting between Korea and Japan, an annual cooperative meeting has been held for technical and information exchange on geodetic measurement and mapping.



- Korea-China : The conclusion of the memorandum of understanding on measurement as well as mapping and science and technology between Korea and China was meant to promote annual cooperative meetings for diverse technical exchanges on measurement as well as mapping.



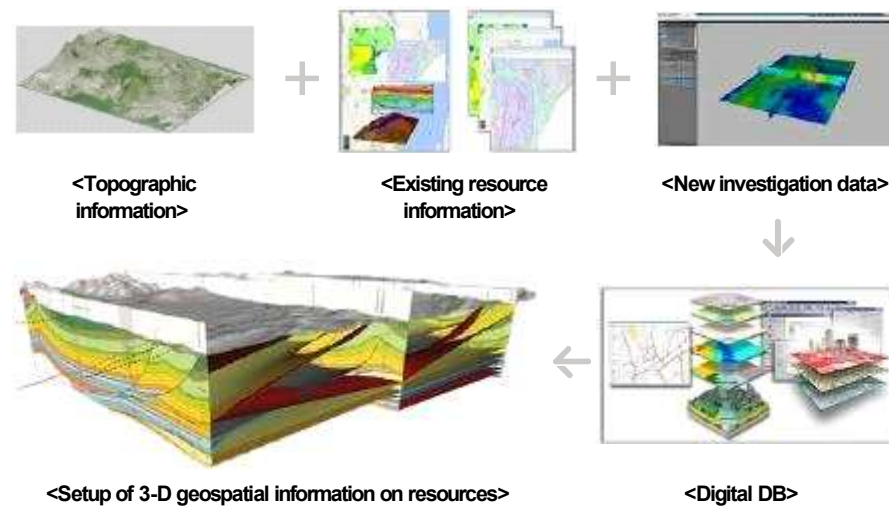
- Korea-Russia : Through the integration of Russia's geospatial information-related organizations, a new MOU was signed between Korea and Russia in September 2016 and both nations held a cooperative meeting in August 2017 at the Eastern Economic Forum attended by the leaders of the two countries.



- Participating in UN Conference on Global Geospatial Information Management (UN-GGIM)
 - Seeking cooperation among countries, international organizations and the private sector to manage global issues such as earthquakes, tsunamis and climate change through the utilization of geospatial information



- Participating in the African Minerals Geoscience Initiative (AMGI) Project
 - Participating in official development assistance (ODA) initiated by the UN and World Bank to support Korean companies in geospatial information and resource development expansion to Africa



- Operating Eurasian SDI (Geospatial Data Infrastructure) Initiative
 - Signed MOU on building geospatial information infrastructure in Eurasia and sought diverse cooperative plans
 - Supporting Korean companies in entering Eurasian geospatial information market through introduction of knowhow in setting up Korean geospatial information infrastructure



National Map Museum & Space Geodetic Observation Center

■ National Map Museum :

Consists of Center Hall, History Hall, Modern Hall and Open-air Exhibition Hall and displaying variety of antique maps and surveying equipment for better understanding of surveying and mapping and raising awareness of national territory

■ Space Geodetic Observation Center :

Harbors the VLBI system which is the 3rd in Asia and 16th in the World. The Space Geodetic Observation Center opened an advanced era of space observation for Republic of Korea. The center is consisted of antenna, observation building, promotion center.



<National Map Museum>



<Space Geodetic Observation Center>

Educational Service

- Education for creative talent: Three days of classes for public officials and teachers on basic theory and practices of geospatial information
- Visiting Service: Introducing mapping process and map utilization methods to students by visiting elementary, middle and high schools
 - Application: Conducting survey on demand of elementary, middle and high schools nationwide in first half of each year → Selecting schools through reception of applications

Public Support Center

- Management of surveying business registration: running registration services such as new and modified registration for surveying businesses managed by NGII (geodetic surveying, coastal investigation and surveying, aerial photography, geospatial imagery drawing, image processing, digital mapping, cartography and underground facility surveying)
- Issuance of aerial photographs: Providing prints of aerial photographs requested by visitors
- Issuance of old topographical maps: Providing prints of topographic maps issued between 1957 and Independence Day
- Issuance of final results table of national control points: Providing printouts of final results table of integrated control and control points and triangulation
- Location: First floor of National Geographic Information Institute HQ

Geospatial Information Application Support Center

- Providing consulting with outside professionals on inconveniences and questions on utilization of geospatial information
- Tel: +82-31-210-2700

Contests

Gold prize winner of 17th Global Children's Map Drawing Contest

- Children's Map Drawing Contest : held every year
 - Map drawing contest for elementary school students awarding grand and school excellence prizes, gold, silver and bronze medals, and special awards
- Global Children's Map Drawing Contest



- OnMap contest: Hosting annual competition for all Koreans and awarding prizes to those showing exemplary cases on On Map utilization



OnMap contest

Operation of Public Surveying System

- Management of surveying standards, procedures and methods to guarantee accuracy of survey results for public safety and effective management of public facilities



Responsible Administrative Agency

NGII is the only mapping and surveying agency, designated as responsible administrative agency since 2001

What is a responsible administrative agency?

A responsible administrative agency is an administrative organization that is required to **"secure operational performance"** due to its specialty with **"autonomy in budgeting and personnel affairs"** granted to its head to take **"responsibility for the results of its own operations."**

Evaluation

- Assessing degree of user satisfaction with services of geodetic control points, aerial photographs and digital maps
- Assessing results of NGII's key performance indicators yearly
- Evaluating responsible administrative agency's managerial competencies such as leadership and organizational efficiency

Planning

- Setup of mid-term management plans for responsible administrative agency
- Setup of annual plans for responsible administrative agency based on the mid-term management plans
- Setup of key performance indicators of responsible administrative agency every year

Implementation

- Carrying out projects and tasks of individual departments to achieve prescribed performance indicators
- Conducting continuous management through quarterly inspections of task results



Ten years later

Twenty years later

Thirty years later

People who will provide location framework in an innovative way

People who provide geospatial information with mass customization

Are the people of National Geographic Information Institute.

Even in a futuristic tomorrow

Those who know how to make people warm,

Those who know how to make life abundant

Those who know why geospatial information must come first

Are the people of National Geographic Information Institute.

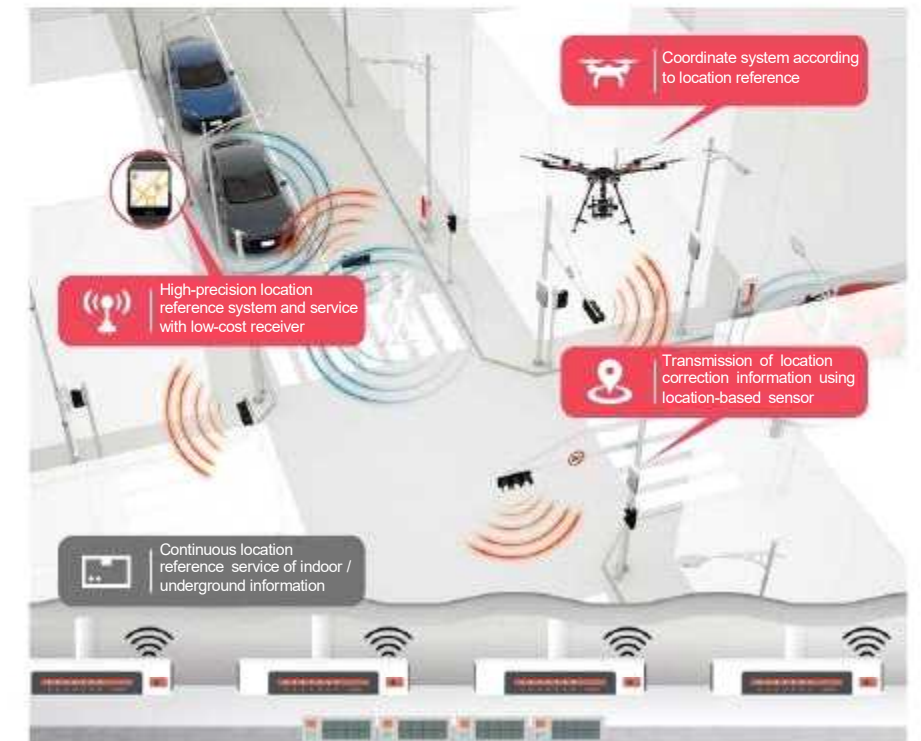
We learn from the Future

National Geographic Information Institute,
through providing high-tech geospatial information,
seeks a brighter future for Korea's geospatial information.

"We prepare a super connected location reference network coping with the future and provide customized services tailored to the future demands of geospatial information"

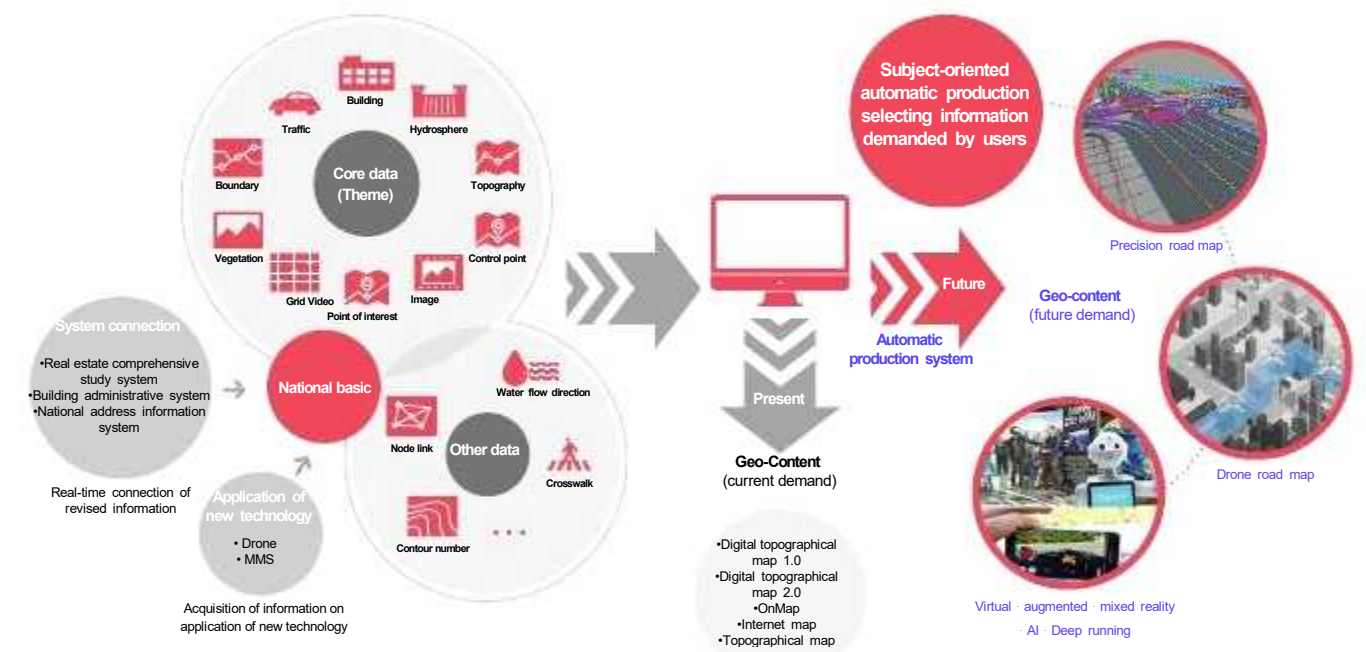
Super connected location reference framework

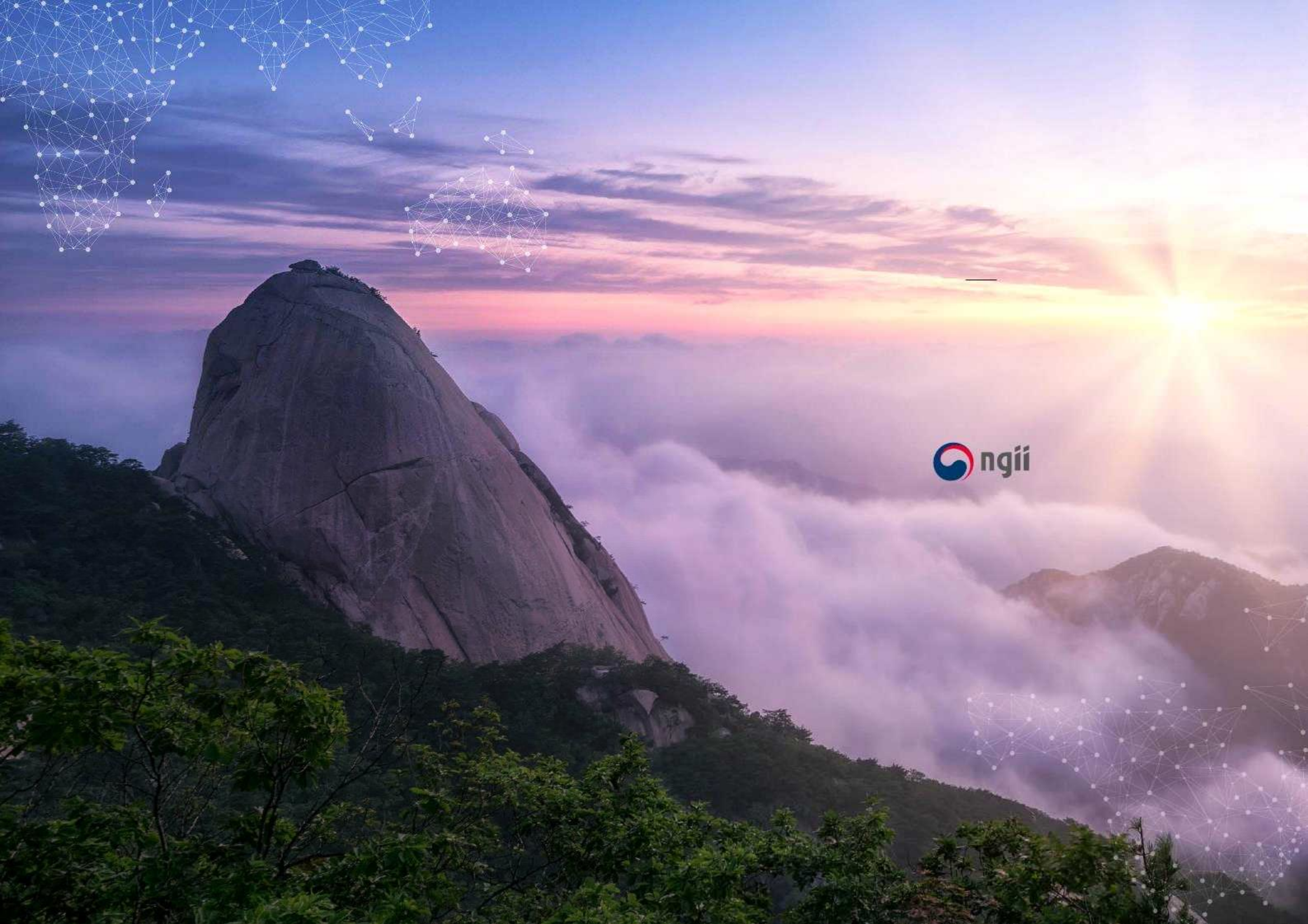
- Possible to use all location reference information via one click by 2022
 - Resolving disconnection of GNSS signal / bad segment
 - Utilizing things other than measuring devices such as smart phones, drones and autonomous vehicles
 - Seamless location reference service for underground / indoor geospatial information



Mass customization of geospatial information

- [Information construction] We will set up geospatial information people can be satisfied with
- [Information management] We will update and provide daily geospatial information
- [Information derivation] We will utilize streamline production system and prepare for the future
- [Providing information] We will provide customized geospatial information to people
- [Improvement of business process] We will change work method





 ngii

**National Geographic Information Institute will
upgrade the future of Korea through valuable
geospatial information.**

As the country's leading producer of geospatial information,
NGII is gathering the strength and wisdom to provide customized
convergence service of geospatial information

There is the NGII at the center of geospatial information



**NATIONAL
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National Geographic Information Institute will stay by your side at all times.



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