

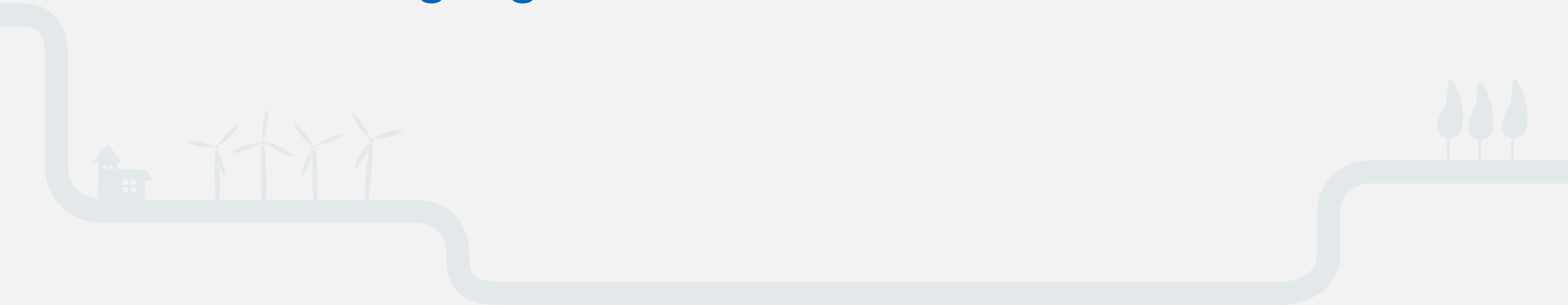
Geospatial Information and Statistical Integration in Korea

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Legal Foundation – National Territorial Survey

- Geo-statistical integration in Korea is part of **National Territorial Survey**
 - A series of activities from data collection of population, regional economy, societal status, transportation use, environmental conditions and land uses in the entire territory of Korea,
 - to the development and publication of spatial indicators in support of temporal monitoring, national/regional/urban planning/policies and policy impact assessment.
- National Territorial Survey, in charge of NGII, is an annual activity mandated by
 - The Framework Act on the National Land, Article 25
 - Regulation on the Survey of National Land (Presidential decree No.85 I)
 - The Framework Act of National Spatial Data Infrastructure

Legal Foundation – National Territorial Survey

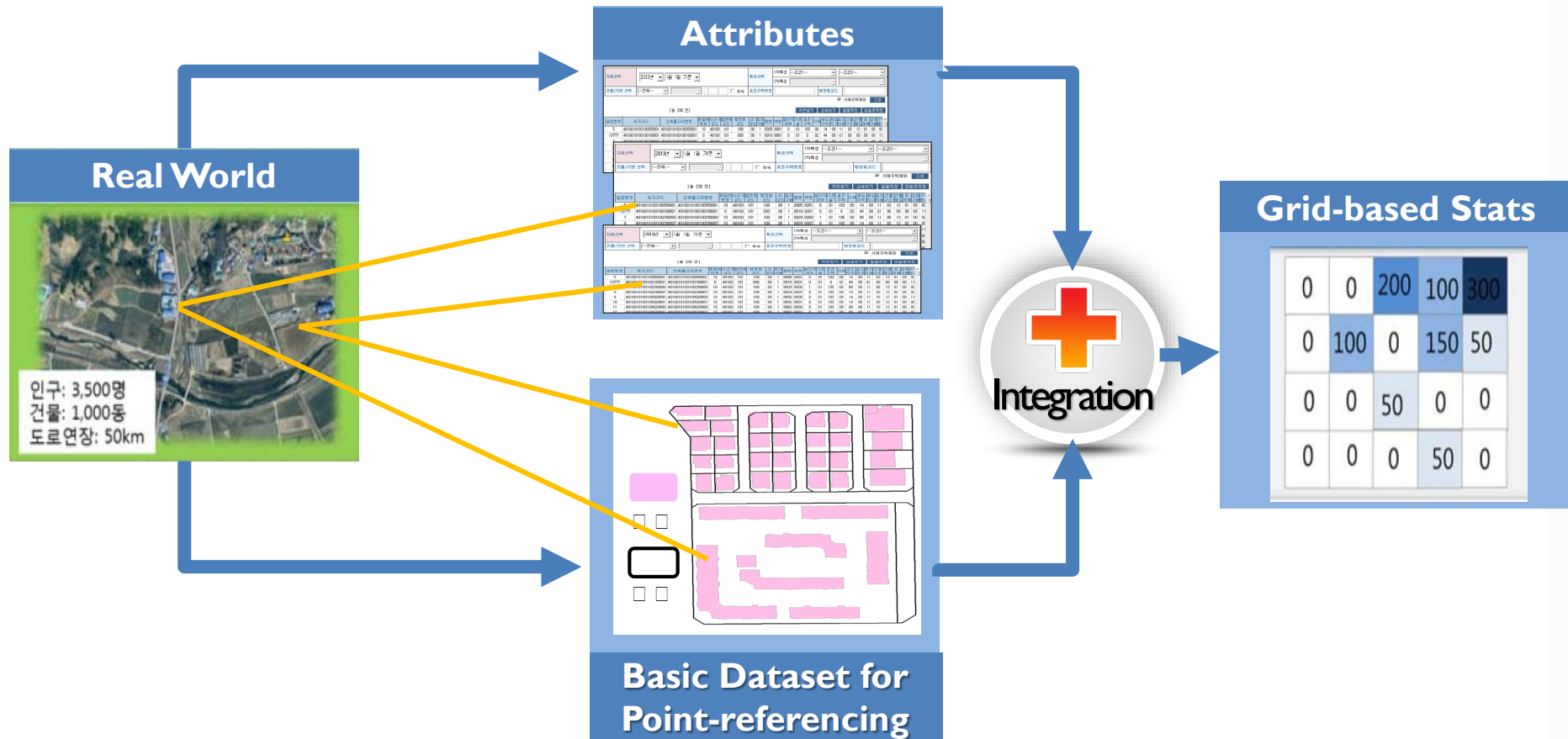
- National Territorial Survey started around 2000 and continuously renewed
- Theme changes
 - ~'02: national land development and growth
 - '02 ~ '12: national land development, conservation, balance & harmony
 - '12 ~ '19: national land management, regeneration, & creative economy
 - '20 ~: smart national land innovation & inclusive growth
 - : covers 6 subjects of population & society, land and housing, economy & jobs, life & welfare, infrastructure, environment & disasters
- **Developments in the methods for geo-statistical integration**
 - ~'13: used statistics of administrative units
 - '13~: started to produce grid-based statistics from administrative registry data and introduced platform system
 - '18~: developed grid-based statistics of (public/private) road-network-based accessibility to basic service facilities
 - '20~: will develop grid-based statistics from private-sector big data

Grid-based Approach to Geo-statistical Integration

Data of activities & environmental status of the National Land

Geocoding
(Point referencing)

Spatial Indicators
in a standard set of grids

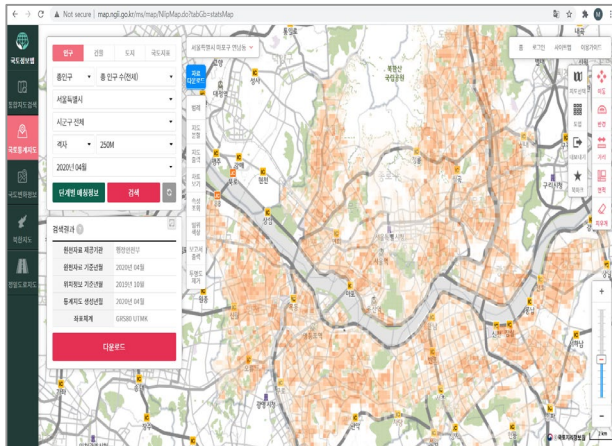


Grid-based Approach to Geo-statistical Integration

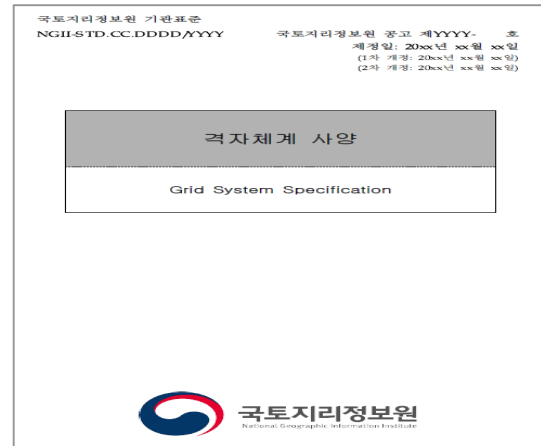
- Key principles
 - (Attributes) Live, micro data from registry systems or surveys
 - (Geocoding) Address-based point geo-referencing
 - Informs how spatial data of address points as well as attribute data from registries or public info systems should be improved
 - (Grid) Use a nationally standardized set of grids for data interoperability
 - (Stats) Produce detailed, multi-scale yet safe data with sufficient metadata
 - (Infra) Build a digital platform for semi-automated mass production and online publication of output data/maps
 - (Promotion) Listens to and make direction communications with data users (e.g., academics, government agencies & officials)

Major Developments and Achievements

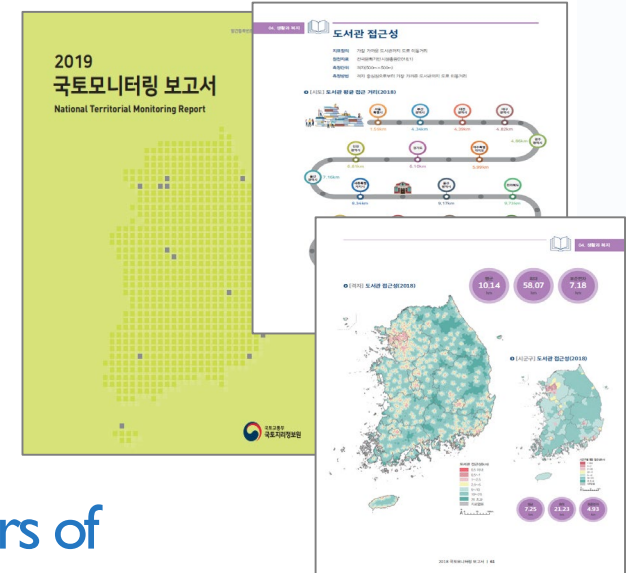
National Territorial Survey Platform (2015)



Institutional Standards of Grid Stats (2017)



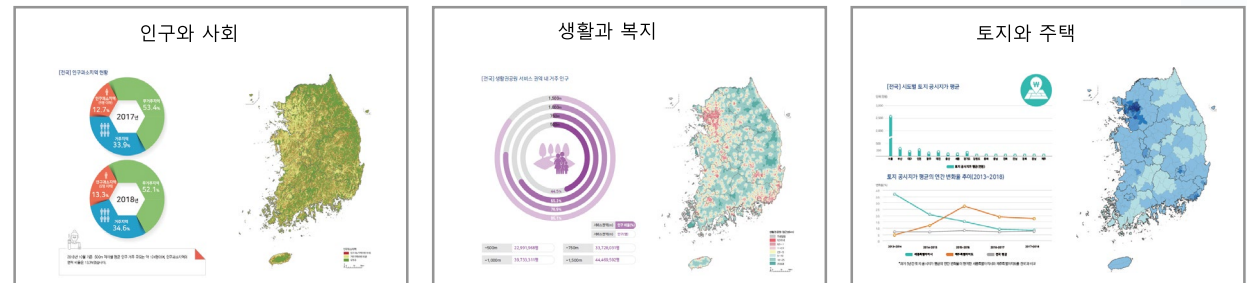
National Territorial Monitoring Reports (2017~)



Data Evidence For The Life SOC Project (2019)



Monitoring Spatial Indicators of The National Territorial Plan (2017~)



Actionable Data Resource for UN SDG Indicators

- UN SDGs & K-SDGs 11-7

SUSTAINABLE DEVELOPMENT GOAL 11

Make cities and human settlements inclusive, safe, resilient and sustainable



(UN SDGs 11-7)

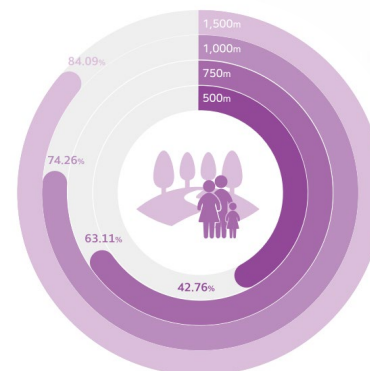
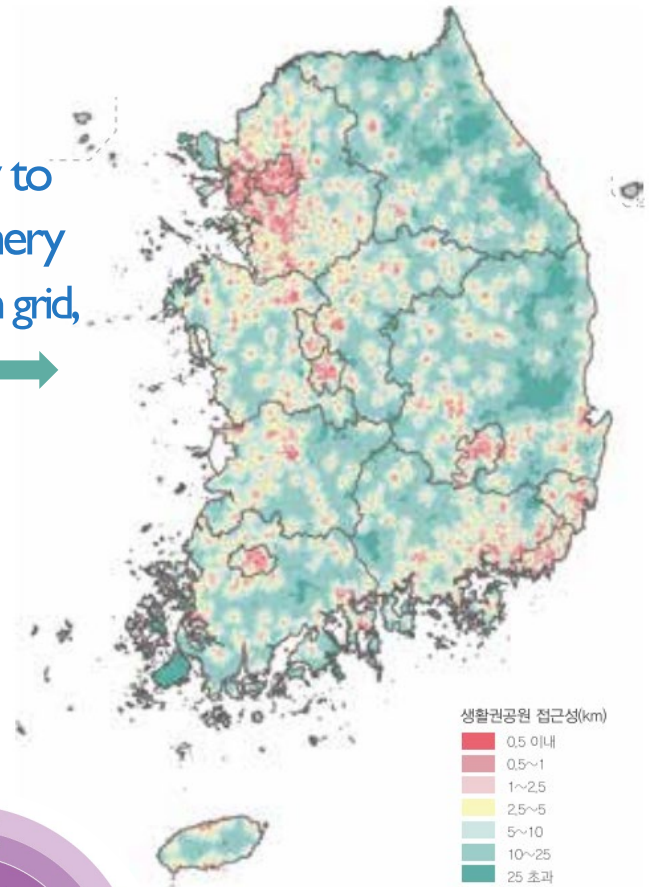
By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities

K-SDGs (11-7) focuses on “Accessibility to Urban Greenery” for all.

- National Territorial Survey Provides Grid-based Data of

- Accessibility to urban greenery
- Ratio of population within a service area of urban greenery

Accessibility to urban greenery (500m*500m grid, 2019) →



서비스권역(m)	인구(명)
~500m	22,128,895명
~750m	32,660,255명
~1,000m	38,428,193명
~1,500m	43,513,156명

On-going and Planned Innovations

- Development of a plan and roadmap for National Territorial Survey Innovation
- Automate the process of geo-statistical integration as much as possible regardless of spatial units for integration
- Develop spatial indicators that can show the effects of COVID 19
- Upgrade spatial indicators of access to basic services with regard to their types and attributes as well as to the method for distance calculation
- Strengthen the promotion, education and international cooperation (e.g., UN-GGIM-APWG3, EFGS, GFGS) of National Territorial Survey

Thank You!!

