Public Data Policies and Governance
of Republic of Korea

2021.4.

Digital Government Bureau
Ministry of the Interior and Safety

Overview

Legal Framework

Act on promotion of the provision and use of public data	Act on promotion of data-based administration	E-Government Act
Open data	**Data analysis and utilization**	**Administrative Information sharing**
- Public data strategy committee - Master & implementation plan for promoting the provision and use of public data - Inspection on data provision & management - Survey on public data usage - Public data provisioning officer - Public data utilization support center - Preventing service overlapping - Public data catalog - Public data portal - Data quality assurance and standardization - Public data provisioning process - Mediation of disputes over provision	- Data-based administration committee - Master & implementation plan for data-based administration - Integrated Data Management Platform - Request process for the private sector data - Metadata and data relation management - Data-based administration officer - Data analysis center of each entity - Pan-government data analysis center - Expert institution of data-based administration - Inspection on data-based administration - Dissemination of best practices - Training program	- Obligation to share information among government entities - 'Once only' data collection - Public Information Sharing Center - Administrative information catalogue - Definition, scope, and exemption of information sharing - Application and approval process - Right of owners of information to request access - Right of owners of information to request provision and transfer (in process)

Personal information protection act

Principles and Goals

Open Data
- ❑ To enforce government to open data
- ❑ To facilitate utilization of public data
- ❑ To provision integrated, high-quaility data

  ➢ Digital ecnomy development
  ➢ Transparent and open government

Data-Based Administration
- ❑ To use data for policy making and decisions
- ❑ To manage and share data systematically
- ❑ To ensure accuracy, integrity, interoperability

  ➢ Scientific and reasonable policies
  ➢ Improve accountability, responsiveness, and reliability of the government

Information Sharing
- ❑ To collect once-only by sharing
- ❑ To unify sharing channel
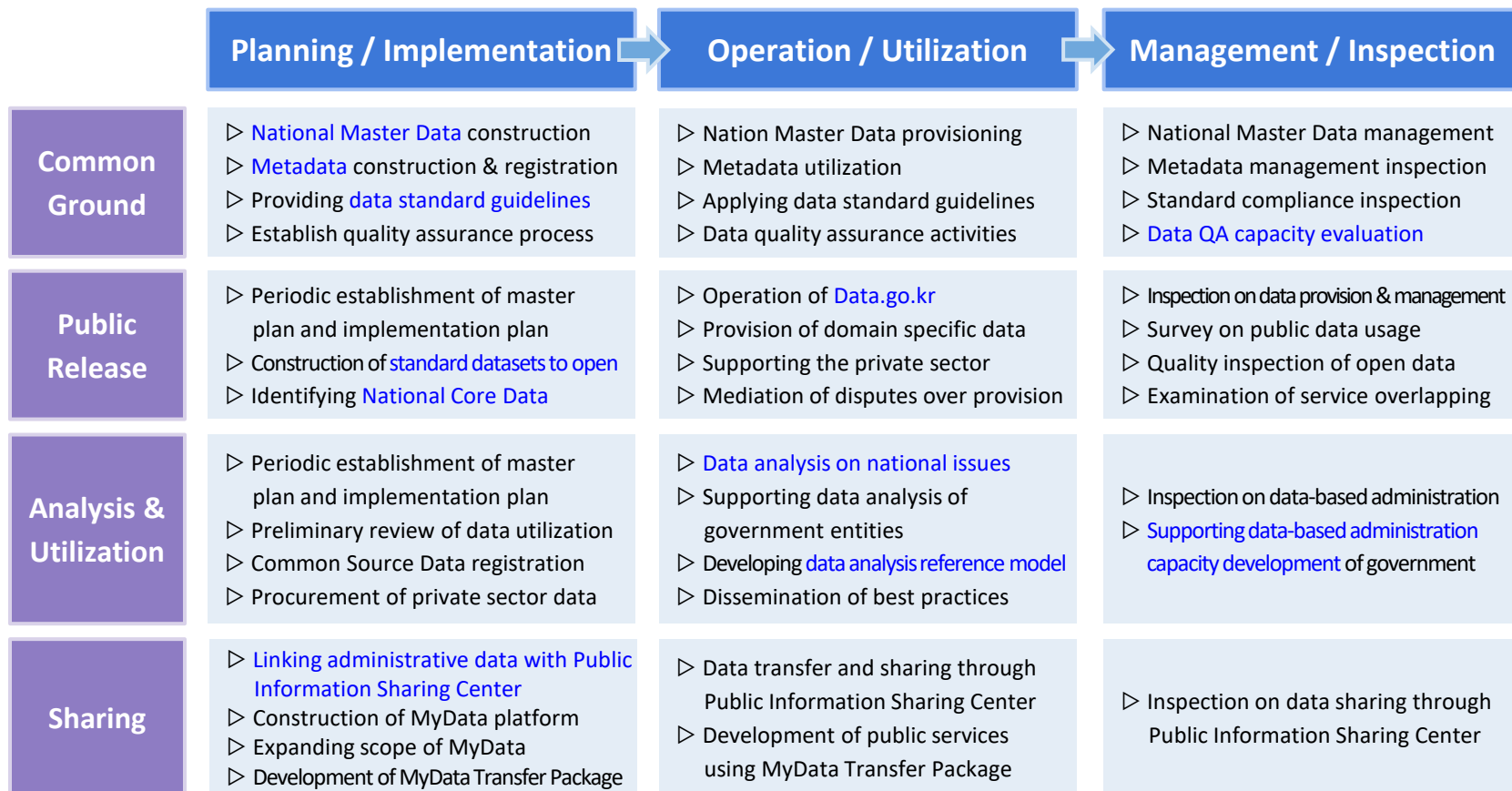- ❑ To ensure access of data owner

  ➢ Citizen-friendly public service
  ➢ Paper-free administration
  ➢ Data rights

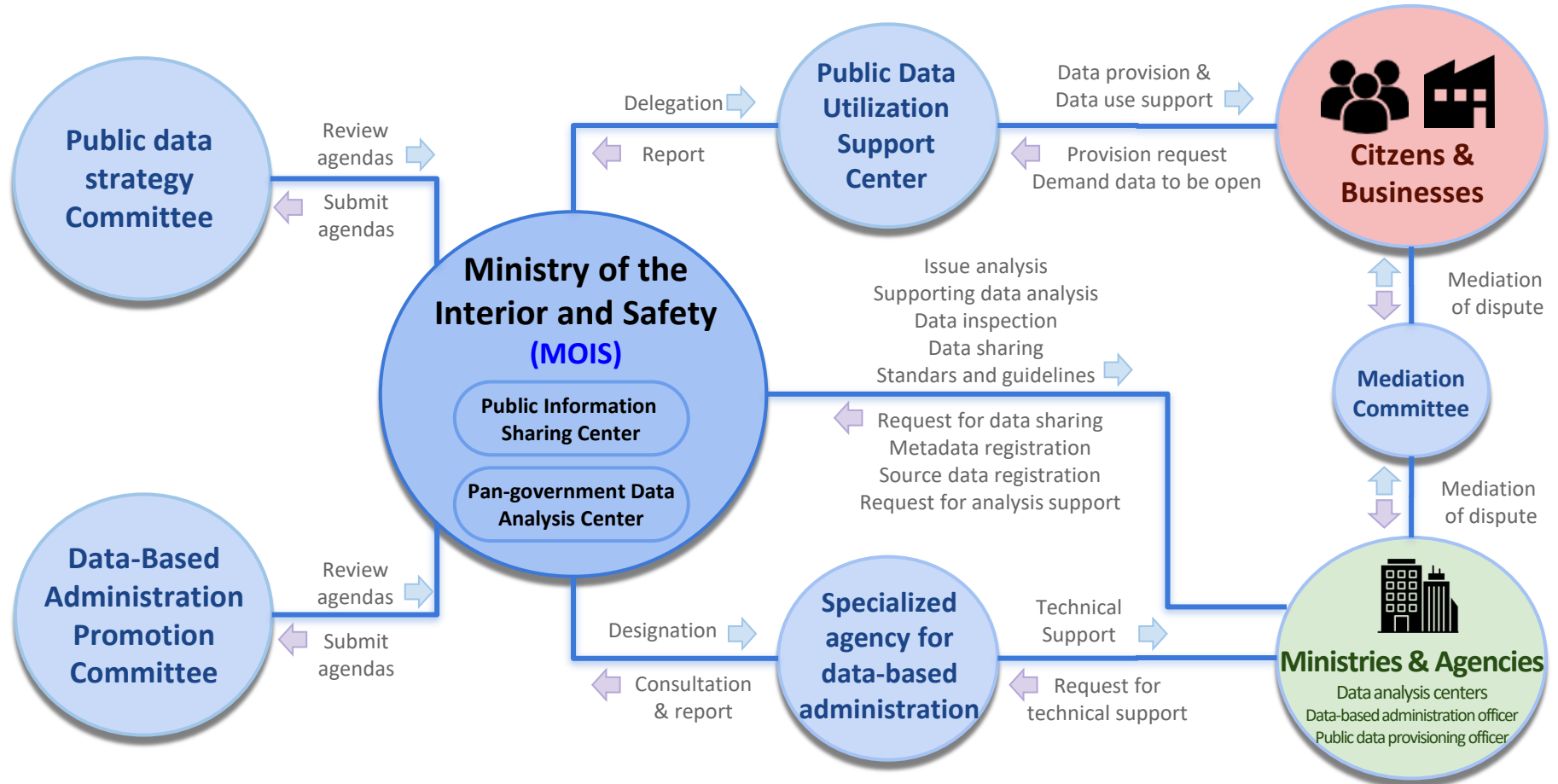**Personal Information Protection**
- ❑ To prohibit unauthorized collection, use, and transfer of personal data
- ❑ To prevent infringement of personal data
- ❑ To enforce government to protect personal data

  ➢ Privacy and human rights
  ➢ Social consensus of privacy protection
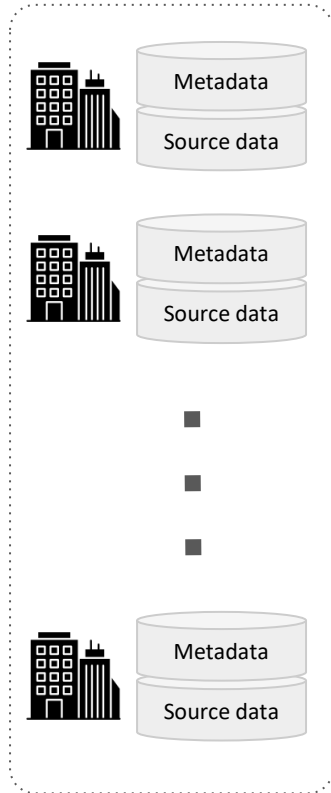
Activities of the Government

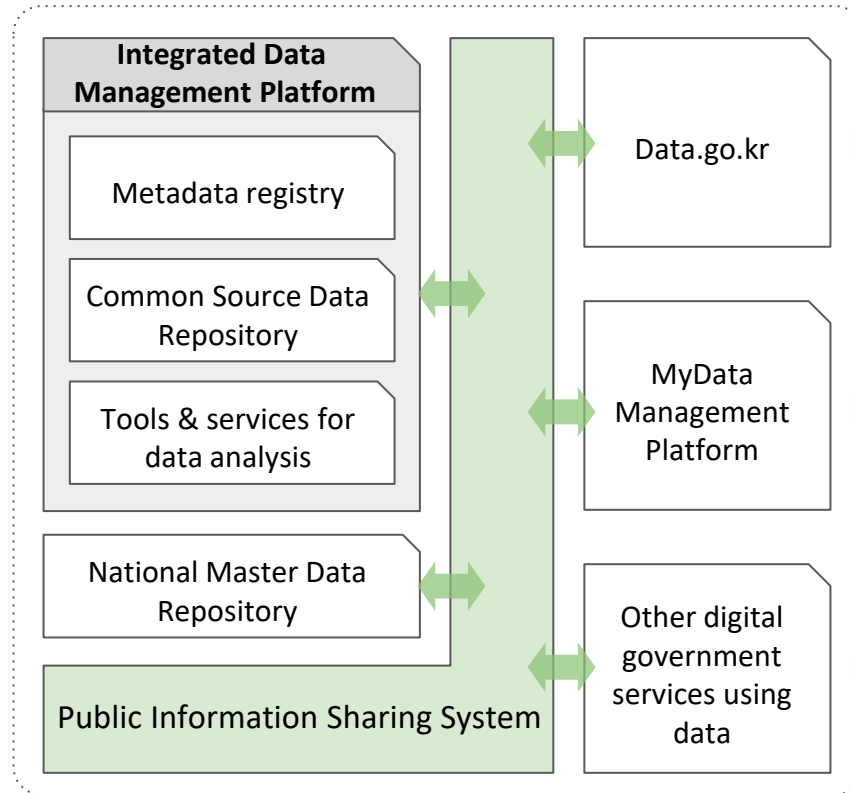|	Planning / Implementation	Operation / Utilization	Management / Inspection
Common Ground	▷ National Master Data construction ▷ Metadata construction & registration ▷ Providing data standard guidelines ▷ Establish quality assurance process	▷ Nation Master Data provisioning ▷ Metadata utilization ▷ Applying data standard guidelines ▷ Data quality assurance activities	▷ National Master Data management ▷ Metadata management inspection ▷ Standard compliance inspection ▷ Data QA capacity evaluation
Public Release	▷ Periodic establishment of master plan and implementation plan ▷ Construction of standard datasets to open ▷ Identifying National Core Data	▷ Operation of Data.go.kr ▷ Provision of domain specific data ▷ Supporting the private sector ▷ Mediation of disputes over provision	▷ Inspection on data provision & management ▷ Survey on public data usage ▷ Quality inspection of open data ▷ Examination of service overlapping
Analysis & Utilization	▷ Periodic establishment of master plan and implementation plan ▷ Preliminary review of data utilization ▷ Common Source Data registration ▷ Procurement of private sector data	▷ Data analysis on national issues ▷ Supporting data analysis of government entities ▷ Developing data analysis reference model ▷ Dissemination of best practices	▷ Inspection on data-based administration ▷ Supporting data-based administration capacity development of government
Sharing	▷ Linking administrative data with Public Information Sharing Center ▷ Construction of MyData platform ▷ Expanding scope of MyData ▷ Development of MyData Transfer Package	▷ Data transfer and sharing through Public Information Sharing Center ▷ Development of public services using MyData Transfer Package	▷ Inspection on data sharing through Public Information Sharing Center

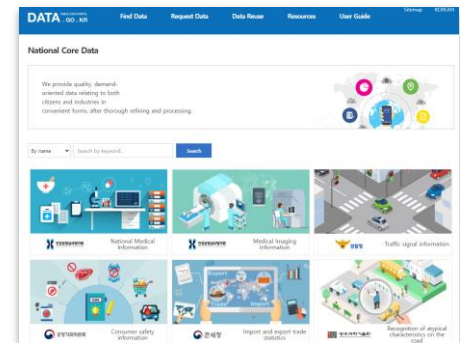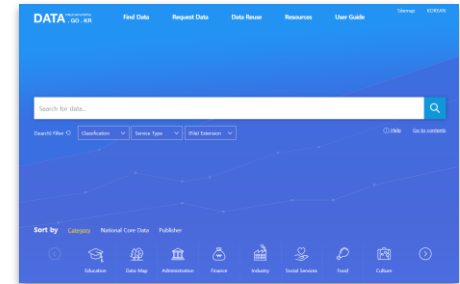# Stakeholders and Roles

Platforms and Services

Policies and Projects

Open Data

**Government makes its data accessible to the public by default
in accordance with the Act on Promotion of the Provision and Use of Public Data**

➢ Data.go.kr: Korea's integrated public data portal
   ○ About 50,000 datasets from 956 public institutions
   ○ More than 7,000 realtime open APIs

➢ Open data strategy (every 3 years) and annual implementation plan
   ○ Pan-government survey on the demand for open data
   ○ Annual objective to facilitate open government efforts
   ○ National core datasets to support emerging industries
   ○ Expanding the scope of open data (e.g. releasing unstructured data)

➢ Evaluation of open data provision and management
   ○ Support government ministries and agencies through providing
     consultations and identifying best practices

Ranked 1st on the OECD OURdata Index three consecutive times (2015, 2017, and 2019)

Public data standards

➢ Government database standards

○ Requirements and technical standards to design and manage databases

➢ Common vocabulary for public data

○ To improve data compatibility and efficiency of sharing

■ 535 terms('20) → 1,000 terms('21) → 1,500 terms('22)

➢ Standard datasets for public release

○ MOIS standardizes formats and attributes of datasets with high demands,

Other ministries and agencies collect datasets abiding by the standards

○ 122 types of standard dataset as of 2020

■ Ex.) Parking space, Public lavatory, CCTV, Accident black spot
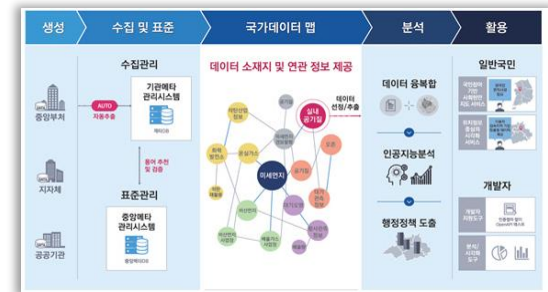
Metadata Management

**Integrated management of metadata from ministries and agencies
for more effective association, sharing, and provision**

➢ Metadata management of each individual ministry and agency

  ○ MOIS developed and distributed a standard metadata management application.

  ○ Metadata includes database schemas and descriptions.

  ○ As of 2020, 564 government entities are using the standard application
    and more then 3,000 databases are registered.

➢ Pan-government integrated metadata registry

  ○ Linked to the standard applications for automatic registration

  ○ One-stop search and view for all government metadata

  ○ Relations between databases to support data association and sharing

National Master Data

➢ National Master Data designation and management

- ○ MOIS designates essential government data
  used by multiple government entities as National Master Data

  - ■ 14 datasets as of 2020 including resident, land, car, corporation, and license

- ○ MOIS inspects and ensures data integrity and accuracy.

- ○ Ministries and agencies compare their source data with National Master

  Data to improve data quality and reliability.
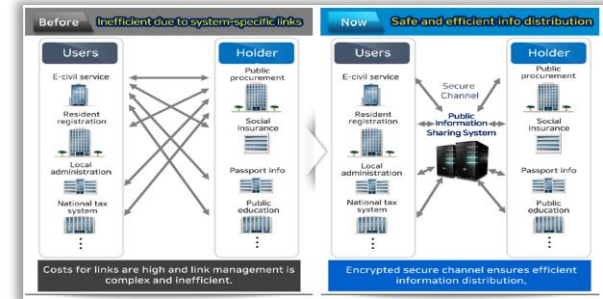
➢ National Master Data Repository
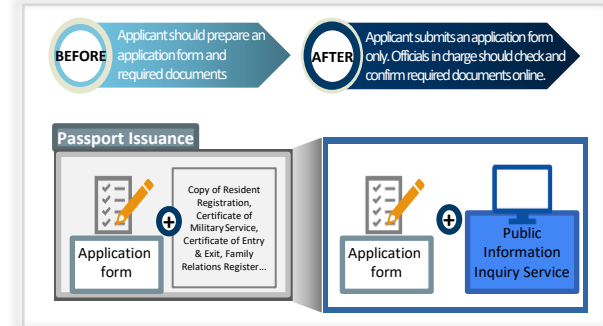
- ○ The single repository used by all government entities to use National Master Data

- ○ Saving costs and reducing time to associate and share data between entities

- ○ Improving data consistency, compatibility, and efficiency

Resident | Car | Address
Business Owner | Corporation | Licence
Farm & Fishery | Goods | Immigrants
Land | Building | Facility
Toxic Substance | Medicine

Public Information Sharing System

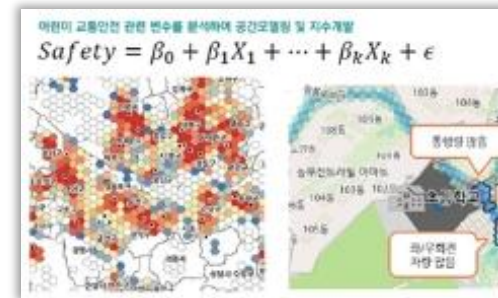## Sharing administrative data among government ministries and agencies through the pan-government data hub

➢ Administrative information inquiry service
- A civil servant can search for necessary administrative information held by another government agency.
- A citizen can receive different government services without having to submit additional documents.
- 162 types of administrative information from 34 agencies are available for search and use for 2,789 administrative processes.

➢ Administrative data sharing service
- The backend service enables machine-to-machine data sharing. Currently, 5,100 types of data from 499 agencies are shared and used.

➢ Future direction
- Create a data sharing platform to enable convenient and flexible data sharing among government agencies
- Enhance service quality by using emerging technologies including cloud computing technology, blockchain etc.

Data analysis for intelligent government services

Data analysis to support policy making & to facilitate public service reform and innovation

➢ Planned analysis on key policy areas: 15 projects from 2018 to 2020
  ○ Data analysis for national agenda, pending issues, mid to long-term strategies
    ■ e.g.) identifying main causes for industrial disasters, effects of air pollution in the urban areas, etc.

➢ Requested analysis to support individual agency: 12 projects from 2019 to 2020
  ○ Demand-based data analysis for individual government agency
    ■ e.g.) identifying the optimal time and location for effective pest control

➢ Reference models for data analysis: 41 models as of 2020
    ■ e.g.) flood risk analysis model shared by all local governments

$$Safety = \beta_0 + \beta_1 X_1 + \cdots + \beta_k X_k + \epsilon$$

Data, and COVID-19

Data for Test-Trace-Treat

Immediate, effective, and efficient response of the government empowered by seamless data flows and silo-free information sharing

TEST	TRACE	TREAT
PCR screening centers People subject to testing PCR test reservation Walk-in PCR test PCR test results	Confirmed cases High-risk areas Contact tracing Infection route Self-quarantined people	Patient management Treatment facilities Medical supplies Health insurance Medical records

Spreading Data against COVID-19

Transparent and prompt information sharing with the public about the outbreak

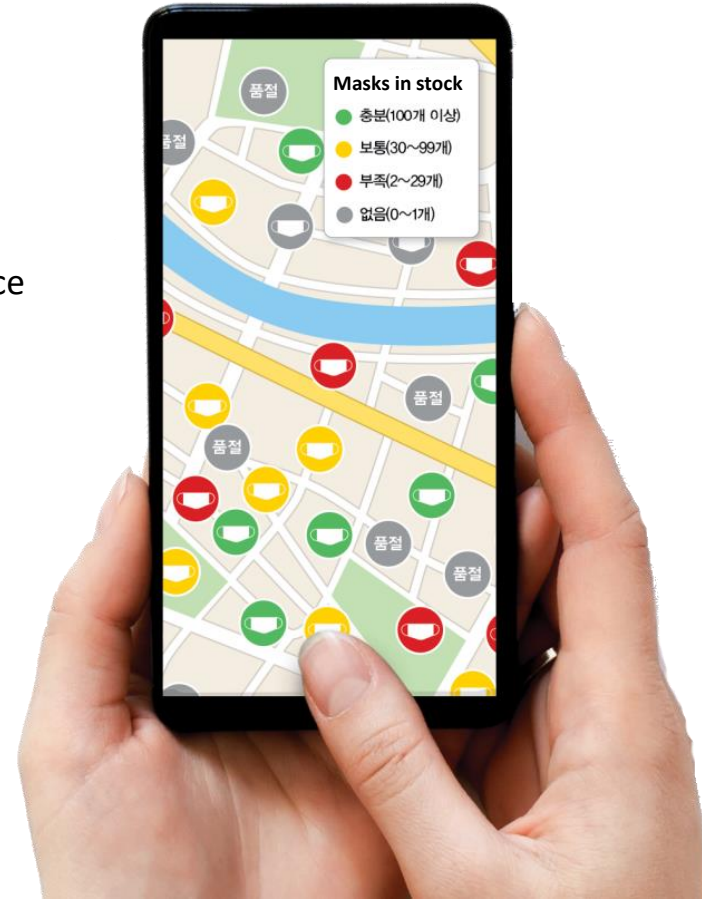| Government Websites | • Local governments provides information tailored for their residents |
| | • Data formats are standardized and can be merged easily |

| Datasets and Open APIs | • Various informations are open for collaboration with the private sector |
| | • Companies create apps and services voluntarily for the public good |

| Cell-Broadcasting | • The government broadcasts cell phone text messages to alert people |
| | • Useful for people with less digital capacity |

Private Sector Collaboration: Mask App

- In the early stage of COVID-19 outbreak, citizens suffered from the shortage of face masks.

- The Korean government provided datasets and open APIs to facilitate the development of applications to inform citizens of where to buy face masks.

- 110 mobile apps and 72 websites were developed within a month

- More than 170 million API calls in 3 days

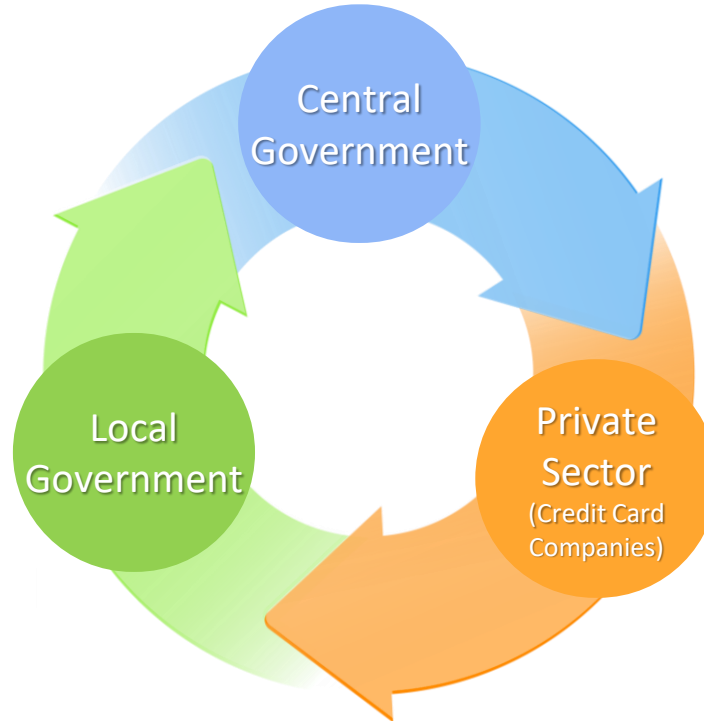- Sell-through rate of face masks increased from 40% to 94%

Relief Fund Distribution

Well-Organized Government Data

Silo-Free Pan-Government Data Sharing

Collaborative Data Governance

Integrated Data Platforms and Infrastructure

Central Government

Private Sector (Credit Card Companies)

Local Government

A new information system set up within a month

21M household received the fund within a month

Thank You

Ministry of
the Interior and Safety