28 April 2022

NIA NATIONAL INFORMATION SOCIETY AGENCY

Korea's Data Ecosystem

Jong-Sung Hwang, Ph.D

Lead Researcher, National Information Society Agency

Status of Korea's Data Ecosystem

e-Government

- Topped UN e-Government Survey in 2010, 2012, 2014
- Ranked second place on UN e-Government Survey in 2020
- Highest-evaluated in OECD open data evaluation in 2015, 2017, 2019
- Ranked second place on the Government AI Readiness Index 2020 by Oxford University and IDRC

Digital Infrastructure

- One of the best broadband Internet penetration: 95.1% of the population using Internet and 97.6% owning a smartphone
- Korea's data industry has shown very rapid growth and produced highly innovative use cases such as big-data based bus route design

Efforts for digital governments have led the development of ICT infrastructure as well as data ecosystem

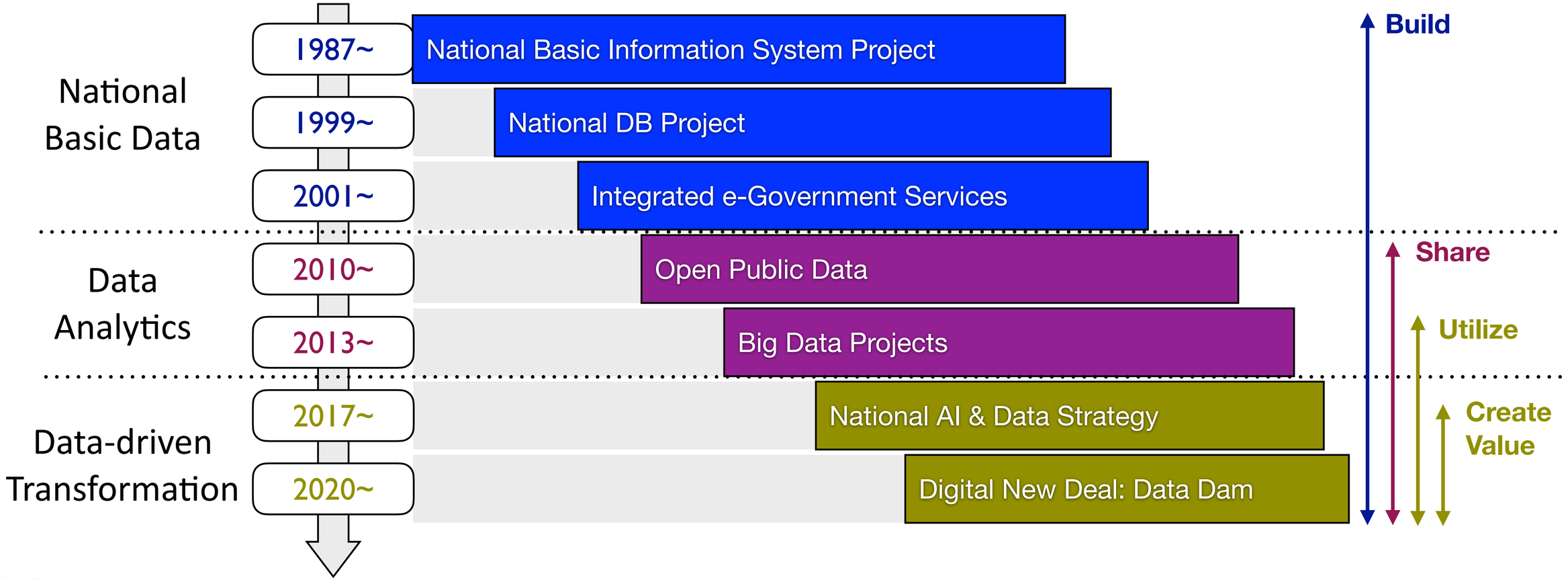
e-Gov

Smart Gov

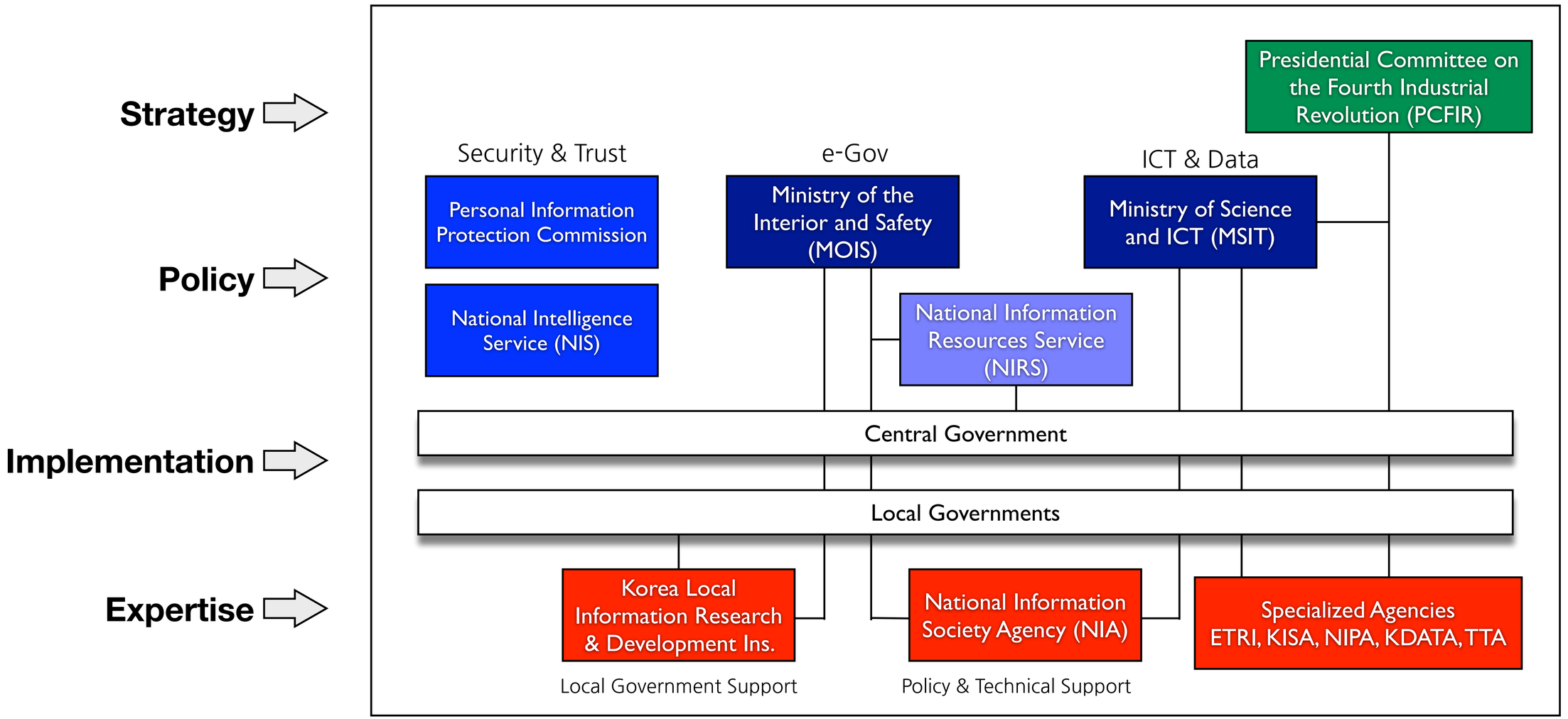
Period	Key Objectives	Key Organizations	Characteristics
1987-1995	• Computerization of National Basic Data	• National Computerization Board under President • National Computerization Agency	• Computerization of 5 key areas such as public administration, finance, education, national defense, security • Lay the foundation for e-government and data era
1995-2000	• Information Superhighway (Broadband Internet) • Digital & Online Service	• National Informatization Committee chaired by the Prime Minister • establish of Ministry of ICT (MIC)	• Enact of Framework Law on National Informatization • Integrated approach to digital government • World first nationwide roll-out of broadband Internet
2001-2007	• e-Government Development (Integration) • Ubiquitous computing	• special committees on e-Government under President • National Informatization Committee	• Strong leadership from the President • Upgrade to integrated e-Government and services • Two separate governances for e-Gov and national ICT
2008-2012	• e-Government (governance)	• dismantle of MIC and distributed governance • National Informatization Strategy Committee	• Weakening of ICT governance with distributed organizations • Introduction of new ICT management such as CIO position and enterprise architecture
2013-2016	• Smart Government (Gov3.0)	• Government 3.0 Committee • establish of Ministry of Science and ICT	• Focus on government innovation based on emerging technologies such as data analytics • Two separate governances for e-Gov and national ICT
2017-present	• The Fourth Industrial Revolution (FIR)	• Presidential Committee on the Fourth Industrial Revolution • National Data Policy Committee	• Focus on national ICT for FIR • Development institutions and organization for data and AI

Korea's Data Strategy

- **Decades-long consistent data strategies have been implemented across all the administration since 1987**



Korea's Data Governance



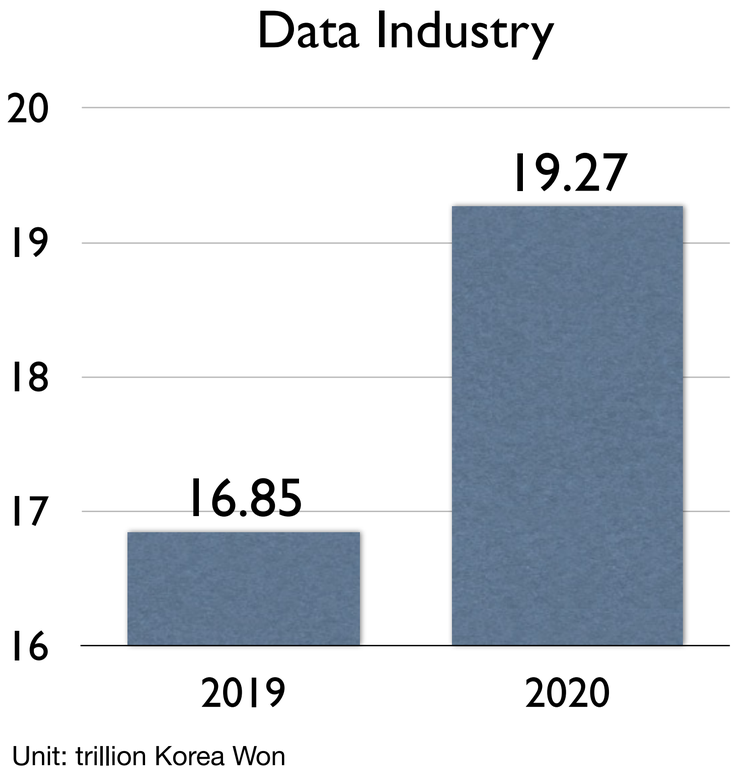
Government-wide Committees for Data Strategies

- Special purpose committees have been established for highly strategic national agendas. e-Government and government innovations have been main targets, but recently data issues have produced several special committees.
- Data related coordination committees
  - Open Data Strategy Committee: Since established in 2013, it has driven the opening to the private sector and one of its key tasks is to settle disputes between agencies or between government and the private.
  - National Data Policy Committee: It is due to start working in April 2022 accorindg to the newly enacted Data Framework Act. The committee comprises a wide range of ministries closely related with national data policy and two leading ministries, MSICT and MOIS, serve as executive secretary because they represent the private and the public sector respectively.

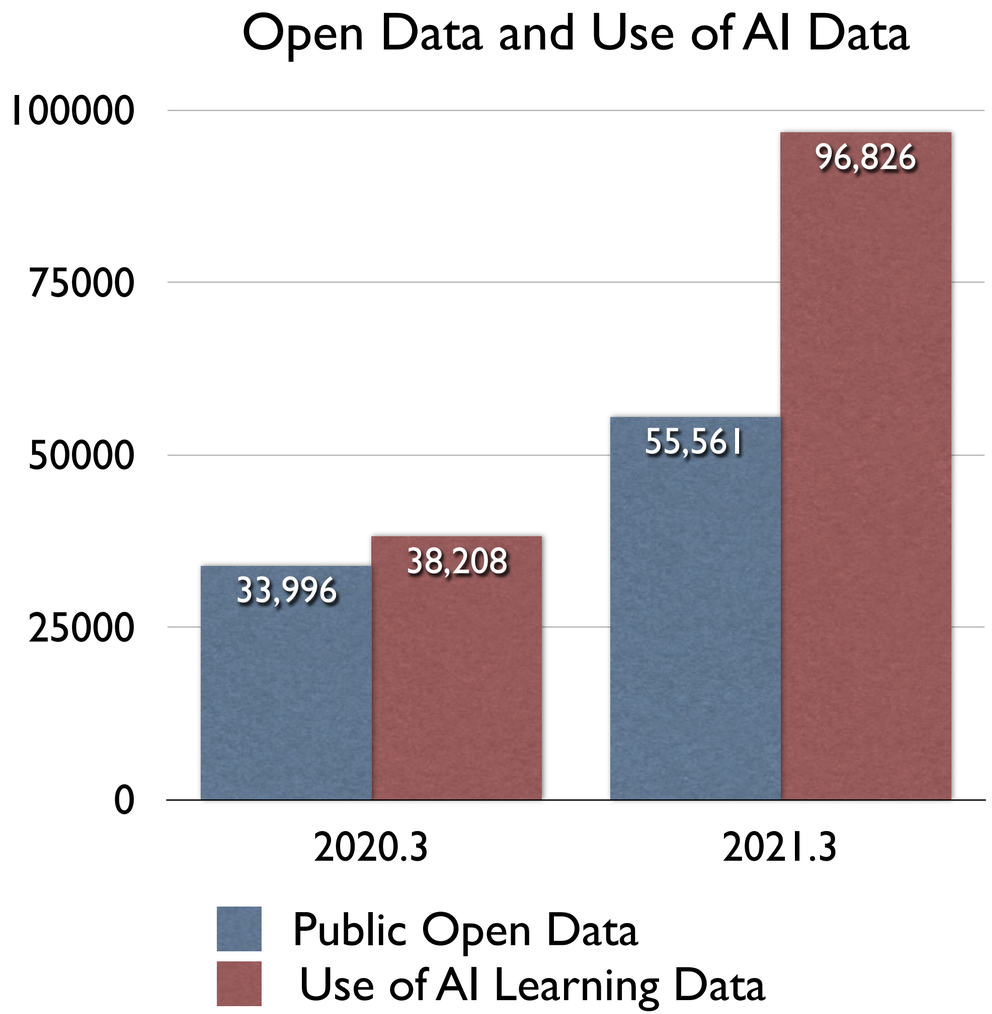
Period	General Committee	Special Purpose Committee
1987-1995		• National Computerization Board under President (M)
1995-2000	• National Informatization Committee (PM)	
2001-2007	• National Informatization Committee (PM)	• special committees on e-Government under President (CE)
2008-2012	• National Informatization Strategy Committee (PM+CE)	
2013-2016	• ICT Strategy Committee (PM)	• Government 3.0 Committee (CE) • Open Data Strategy Committee (PM+CE) • e-Government Committee (M+CE)
2017-present	• ICT Strategy Committee (PM)	• Presidential Committee on the Fourth Industrial Revolution (CE) • Open Data Strategy Committee (PM+CE) • e-Government Committee (M+CE) • National Data Policy Committee (PM, April 2022)

* Chaired by (PM) Prime Minister, (M) Minister, (CE) Civilian Expert

Key Achievements of Data Policies



Unit: trillion Korea Won



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Self-Assessment of Korea's Data Economy

	As-is	To-be
Data market	An insufficient data utilization environment that fails to meet the private sector's expectations ▪ Lack of quality data desired by the private sector ▪ Insufficient bases for data distribution and transaction ▪ Uncertain system (pseudonymous data, MyData) for data utilization	Greater participation by individual/corporate data users → Private sector-centered data ecosystem innovation
Government policies	Requires continuous and consistent policies ▪ Supplier-centered data policies with a focus on the opening of public data ▪ Decentralized governance with data owned by several ministries, agencies and the PCFIR	Establish institutions and supporting systems to promote data utilization → Establish a comprehensive data policy system
Industry application	Data utilization in the early phase ▪ Lack of industrial utilization and application of data (rate of introducing big data in Korea: 12.3%) ▪ Lack of a foundation for utilizing data, such as experts, computing power and specialized companies	Make an impact on the public by providing data services for their daily lives → Create results that are experienced by the public first-hand

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“Korea Data 19 Project” (Feb 2021 by PCFIR)

11 Tasks

Private sector-centered ecosystem innovation

1. Open previously unavailable key data
2. Secure a level of data quality as requested by data users
3. Utilize private specialized companies and provide support for data purchase
4. Connect data platforms and vitalize data transaction platforms

Establish a comprehensive data policy system

5. Overhaul the national data management system
6. Redesign government activities to be data-centered
7. Stabilize new data utilization systems early on
8. Proactively respond to risks in the overall data ecosystem
9. Build a data- and science-based scientific disaster management system

Special Tasks

10. Implement a COVID-19 time-capsule project
11. Develop an integrated water management data system

9 Services

Create results that allow the public experience first-hand

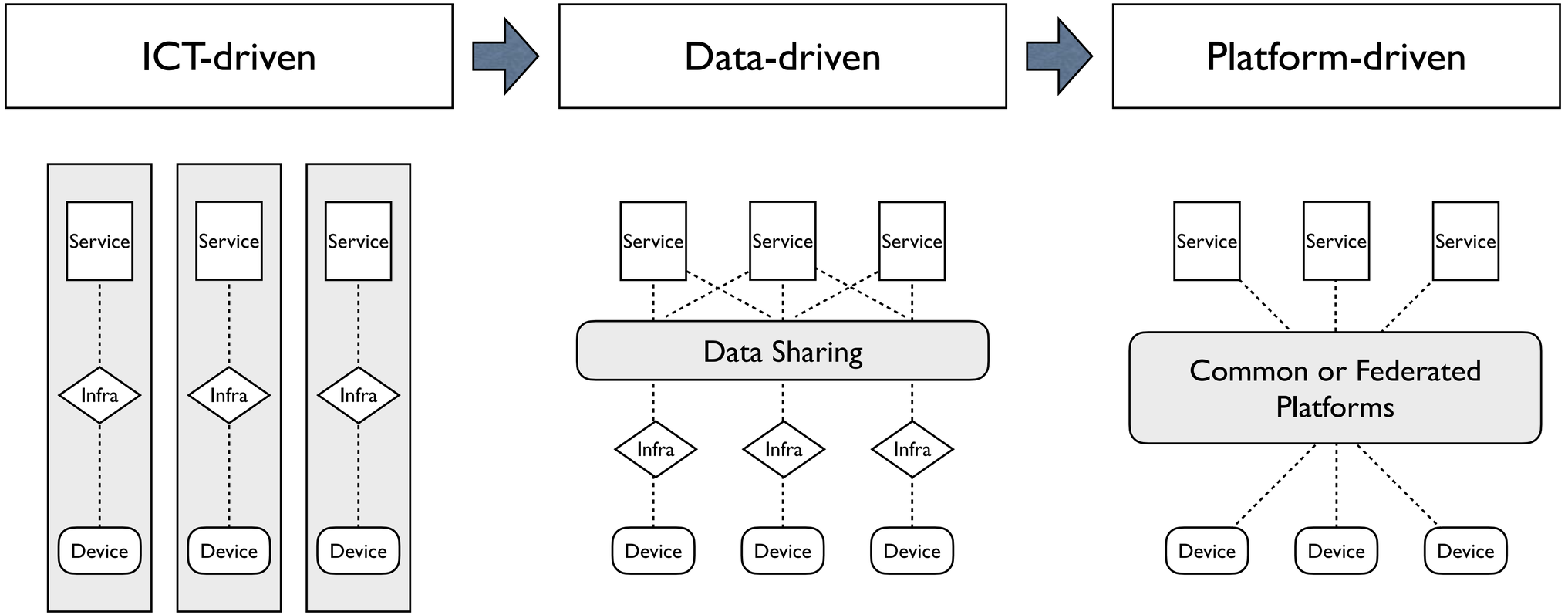
Medicine
1. Personal health information in one place
2. Automated private insurance claims

Life
3. Smart consumption
4. Counterfeit detection

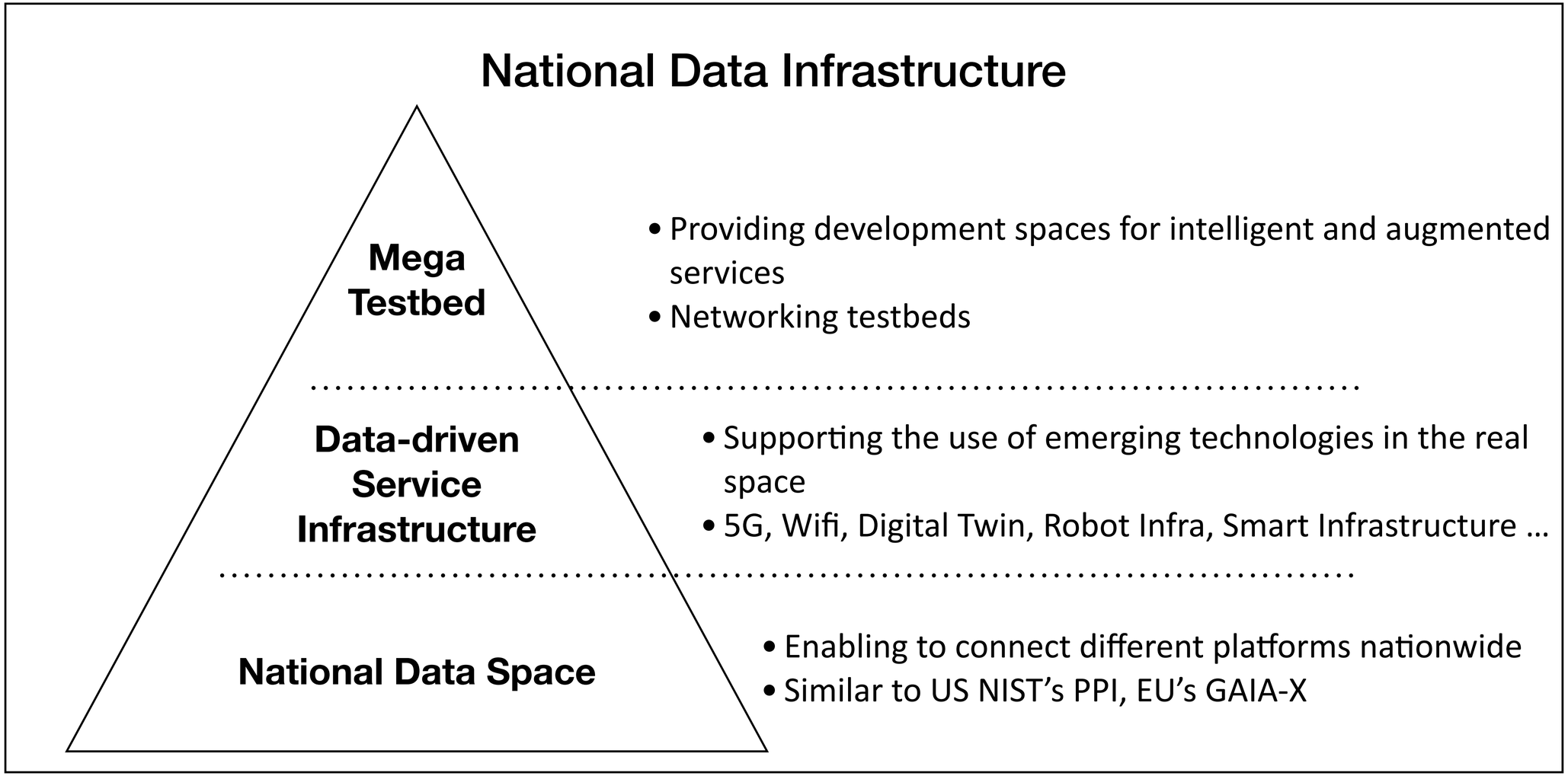
Welfare
5. Continuous meal program for children
6. AI learning assistance

Key Foundation
7. AI Hunminjeongeum
8. K-Image Project
9. Smart ports

Future Direction for Data Ecosystems Development



Preparing for the Future



Thank you

Hwang, Jong-Sung, Ph.D.

Lead Researcher at National Information Society Agency
js.goodworld@gmail.com