National Digital Strategy

Ministry of Science and ICT

Government of the Republic Korea
Structural Transformation around the World

Security
Increasing competition for technological hegemony

Economy
Reaching the limits to growth

Society
Deepening polarization since COVID-19

Environment
Accelerating climate crisis

We need to find innovative solutions that can turn the current crisis into leapfrogging opportunities
Technological Innovation as the Driving Force of Overcoming Crisis and Responding to Change

18th Century  
Industrial Revolution  
Steam Engine

20th Century  
IT Revolution  
Internet

21st Century  
Digital Revolution  
Data AI

Mechanical Innovation  Productivity ↑  
Information Innovation  Communication /Connectivity ↑  
Intelligence Innovation  Freedom /Prosperity ↑

A turning point in the history of civilization led by digital technology
Digital as Korea’s Solution for Overcoming Crises and Leaping Forward

**Source of Economic Innovation**
- **Overcoming Limiting Factors of Production** → Economic Innovation
- **Convergence/Expansion** → Creation of new industries
- **Critical Technology** → Response to Technological Hegemony

**Enabler of a Sustainable Society**
- Automation/Smart Technologies → Addressing the population ageing
- Overcoming Spatial Boundaries → Boosting the local economy
- Inclusiveness → Achieving a welfare state

Explosive Innovation in Digital Technology → Stimulating Great Economic and Social Innovation
Development of “National Digital Strategy”

**New York Initiative (21 Sep 2022)**

Digital

- Realizing the universal values of humanity
  - Freedom
  - Human Rights
  - Solidarity

“In need of a **New Digital Order** to realize the universal values of humanity”

“As a leading nation in the digital era, Korea will share its achievements with citizens of the world, and particularly with people in developing nations.”

**National Digital Strategy**

- **Vision**: “Digital Korea” that serves as a global role model
- **Objective**: Establish a resilient and inclusive digital economy and society
- **5 Strategies**
  - The best Digital Capability in the world
  - Expanding Digital Economy
  - Inclusive Digital Society
  - Digital Platform Government
  - Innovative Digital Culture

**Global Solidarity**: Spreading digital value through solidarity
Industry-Academia-Research Institutes Cooperation to Secure the World’s Best Digital Capability

Creating World-Class (3rd) AI Industry
- Large scale R&D
- Supporting the use of AI models

Entering the Era of Data Economy, From Accumulation to Utilization
- Linking and Integrating public and private data
- Expanding “MyData” to all sectors

Redesigning the Software Industry Structure
- Supporting the transition to Software as a Service
- Creating an environment that rewards developers fairly

Cloud Transformation for the Public–Private Sectors
- Creating a cloud–friendly public procurement system
- Increasing cloud vouchers for SMEs

Nationwide expansion of cloud use

K–Cloud Project: Semiconductors + Software + AI
- Building K–Cloud Coalition
- Establishing an high-speed, low-power cloud data center
Industry-Academia-Research Institutes Cooperation to Secure the World’s Best Digital Capability

**Overhaul of the national digital education system**
- Doubling the class hours of elementary, middle, and high schools

**Building cutting-edge networks one step ahead than other countries**
- (6G) Demonstrating the world’s first 6G technology by 2026 (Pre-6G)
- (Quantum) Flagship Projects for Pursuit of Technology in Three Key Areas

**Nurturing Deep Tech Entrepreneurs**
- Expanding support for entrepreneurship in AI, data, semiconductor and other sectors
- Nurturing 1,000 leading groups of young small business owners using data and AI

**Globalizing the digital platform industry**
- Encouraging the market to establish mutually beneficial model
- Making rules for fair competition

**1 million Talent**

**6G/Quantum**
Expanding Digital Economy Through Convergence and Innovation

Future growth engines of the agriculture and fishery industry
- Accelerating the transformation to data-driven smart agriculture
- Advancement of data-based livestock quarantine system
- Smart marine aquaculture distribution & processing

Advancing to the future of manufacturing
- Establishing digital collaborative factories (joint use of industrial data)
- High value-added for the future manufacturing

Strengthening competitiveness in the service industry
- Fostering Digital Culture to improve the national image by metaverse
- Nurturing future healthcare industry by developing digital · electronic medication and new AI-based drug development
Creating **Digitally Inclusive Society** for Every Citizen

**Guaranteeing digital rights for citizens**

- **Establishing the Bill of Digital Rights**
- **Proclaiming digital rights as a universal rights**

**Developing digital capabilities for socially-marginalized groups**

- **Operating nation-wide digital learning centers (1,000)**

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**Safety** Digital ROK that is safe wherever and whenever

- **AI inspection of imported foods** to block the inflow & consumption of hazardous food
- **AI-based flood forecasting system**
- **AI-based 911 reporting platform**

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**Welfare**

- **Digitalized smart welfare**
  - Responding to emergency situations for the elderly & patients via bio–signal detection technology using frequency
  - Smart care support for the elderly living alone, such as care robots Care Calls

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**Environment**

Digital carbon neutrality to achieve Net Zero

- **Promoting Green Data Center**
- **Support for the introduction of energy-efficient optimized AI**

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**Region**

Revitalization of regional communities through digitalization

- **Creating regional digital innovation hubs**
- **Building Digital Village to improve living conditions in rural villages**
Implementing Digital Platform Government Through Public-Private Partnership

Digital Platform Government (DPG)

1. Implementing and promoting innovation infrastructure for full-scale data availability and utilization
   - Stage 1: Alignment among current government systems
   - Stage 2: DPG by Design
   - Stage 3: Transition to Complete DPG Infrastructure

2. Innovating public service based on AI and data

3. Ensuring a safe and reliable environment

Citizens
- Automation of insurance claims
- Automated recommendations for welfare services

Corporates
- Creating new businesses
- Expanding public market participation

Scientific Governments
- Public-private collaborations
- Scientific policy making

Creating a digital technology-based platform to innovate the government, ensure benefits are shared by citizens, and help innovative companies enter the global market.
Facilitate Private-led Digital Innovation Culture

Institutional support for creating digital economy and society


  - Digital Transformation
  - Digital Citizenship Rights
  - Digital Benefits for everyone

- Establishment of Framework Acts for Digital Economy

  - AI Framework Act
  - Data Industry Act (Existing)
  - Metaverse Special Act
  - Cybersecurity Framework Act
  - Digital Inclusion Act

Private-led innovation culture to take root

- Fostering Voluntary Digital Capabilities and Spreading their Use
  - People

- Promoting Corporate Culture that Encourages Taking Challenges and Innovation
  - Companies

- Spreading Digital Transformation based on Solidarity and Collaboration
  - Regions
Korea playing a leading role in establishing a new digital order as a role model for digital innovation

Global Solidarity → Spreading digital values

Korea not only to realize the universal values of humanity but also to lead new economic principles, technical standards, and ethical standards