

From Data to Impact

Building Trust-Based Digital Ecosystems
for AI and Economic Growth

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From Data to Impact.

THE PROBLEM

Data is Everywhere, but Impact is Not

175 ZB

Global datasphere projected by 2025

Source: IDC/Seagate, The Digitization of the World: From Edge to Core

32%

Of enterprise data is put to work

Source: Seagate/IDC, 2020

⚠️ KEY BARRIERS PREVENTING IMPACT

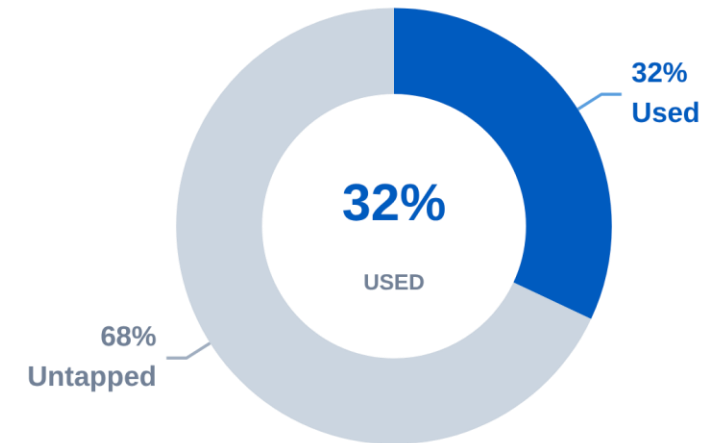
Lack of Network Effects
Data silos prevent collaborative value creation across sectors and organizations

Fragmented Regulation & Governance
Inconsistent frameworks create legal uncertainty and slow data-driven adoption

Lack of TRUST **Most Critical**
The primary reason data cannot flow between organizations and AI cannot scale

“*The bottleneck is not data. It's trust.*”

GLOBAL DATA UTILIZATION GAP



■ Data Used (32%) ■ Untapped Data (68%)

WHY TRUST MATTERS

Trust is the Foundation of Data-Driven Economies

Safe Data Sharing

Enables cross-organizational data reuse with confidence, reducing information silos across sectors.

Reduced Regulatory Risk

Legal backbone via PIPA & Data Industry Promotion Act (enacted 2021) ensures compliant data flows.

Stakeholder Confidence

Builds lasting trust among public institutions, enterprises, and citizens in data-driven services.

AI Adoption at Scale

Accelerates AI integration and scalability across public and private sectors at a national level.

“ ***Without trust, data cannot flow.
Without data flow, AI cannot scale.*** ”

— Foundational principle for data-driven economies

THE TRUST CHAIN



World Bank,
'Digital Progress
and Trends
Report 2025'

Strong data governance, digital infrastructure, and skills are essential foundations for scaling AI adoption.

KOREA'S APPROACH: KOREA BUILT NOT JUST TECHNOLOGY, BUT A SYSTEM

Building Trust-Based Digital Ecosystems

Korea's success stems from a comprehensive **Three-Pillar Strategy** that integrates law, infrastructure, and market dynamics to create a sustainable data-driven economy.

Data Governance

Establishing the legal and institutional foundations for trust.

- ✓ Data Industry Promotion Act (2021)
- ✓ Unified policy alignment & regulation

Public Infrastructure

Building safe data environments and utilization mechanisms.

- ✓ National Data Policy Committee (2022)
- ✓ Trusted data utilization infrastructure

Market Activation

Accelerating enterprise-centered support and innovation.

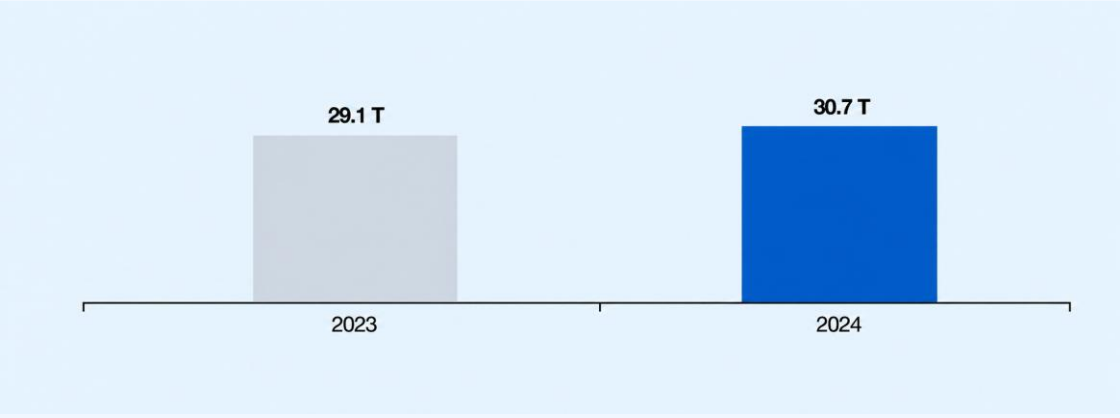
- ✓ SME-focused data voucher programs
- ✓ AI-driven innovation ecosystems

Market Growth Impact

The integrated system has driven significant economic expansion in the Korean data sector.

KRW 30.7 Trillion ↑ 5.8% YoY

Data Industry Market Size (2024)



Source: Korea Data Agency, 2025 Data Industry Survey

ROLE OF K-DATA: KEY IMPLEMENTING AGENCY FOR DATA INNOVATION

Building Trust-Based Digital Ecosystems

Agency Profile

ESTABLISHED **1993**

AFFILIATION **Ministry of Science and ICT (MSIT)**

"Promote growth and utilization of the data industry; lead Korea's data and AI ecosystem."

IMPACT SCALE

2,000+

Companies supported annually across K-DATA programs including Data Voucher

Key Strategic Functions



SME Digital Empowerment

Supporting SMEs and startups with vital data access and technical capabilities.



Market Connectivity

Bridging the gap between data supply and demand to activate the market.



Safe Utilization Environments

Building secure platforms for trusted data processing and analysis.



AI Transformation (AX) Lead

Advancing AI-driven business innovation across diverse industrial sectors.



International Cooperation

Leading global standards and data governance partnerships.

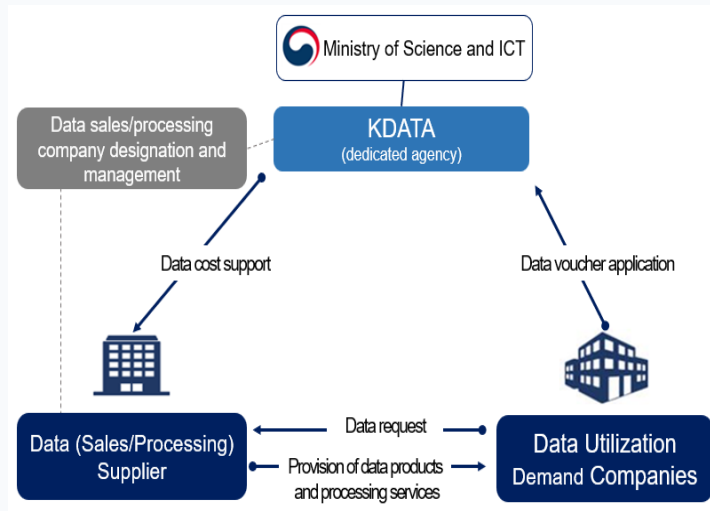
FROM POLICY TO PRACTICE: K-DATA PROGRAMS CONVERT DATA INTO IMPACT

TRANSLATING NATIONAL STRATEGY INTO PRACTICAL BUSINESS INNOVATION



Data Voucher Program

Tailored data support for AI and digital transformation, specifically designed to lower entry barriers for SMEs and startups.



AI/Data Problem-Solving Platform

Developing practical use cases and deploying business innovation solutions by matching data demand with expert AI suppliers.

< Data Problem-Solving Bank >



*AI-Data use case search,
AI-Data 'recipe' application,
Automated analytics tools*



Data Safety Zones

Providing a secure physical and technical environment for analyzing and researching sensitive data while maintaining privacy.



< Partner Centers >



KEY INSIGHT

"Trust must be designed and built — not assumed. It must be embedded across every layer of a national data system — technical, governance, and institutional."

“ Korea Data Agency — Core Lesson for Global Data Ecosystems



Technical Layer

Systems & Infrastructure

Secure data environments & safety zones
Data encryption & access control
Interoperable data standards



Governance Layer

Legal & Regulatory Frameworks

PIPA + Data Industry Promotion Act (2021)
Regulatory clarity & compliance
Cross-sector policy alignment



Institutional Layer

Agencies & Coordination Bodies

National data agencies & platforms
Public-private coordination bodies
Capacity-building programs

KOREA'S TRUST-BUILDING PATHWAY



Data Governance Law

PIPA + Data Industry
Promotion Act (2021)



Public Data Infrastructure

Trusted data infrastructure
(e.g., Data Safety Zones)



Trusted AI Services

AI solutions widely
adopted and deployed



Economic Impact

KRW 30.7T market
5.8% YoY growth (2024)



Countries with comprehensive data governance frameworks are better positioned to scale AI adoption.

GLOBAL RELEVANCE: SAME CHALLENGES, DIFFERENT STARTING POINTS

Building Trust-Based Digital Ecosystems

Three tiers of countries face the same core problem: **lack of trusted data frameworks**. Korea's journey offers a scalable blueprint for diverse digital maturity levels.



Developing Countries

CHALLENGE

Limited data infrastructure and low digital penetration.

KOREA'S EXPERIENCE

National data infrastructure blueprints & ODA-led digital cooperation projects.



Emerging Economies

CHALLENGE

Fragmented data ecosystems and siloed institutional data.

KOREA'S EXPERIENCE

Comprehensive data governance frameworks & cross-sector integration models.



Advanced Economies

CHALLENGE

Complex regulations and the trade-off between privacy and data utilization.

KOREA'S EXPERIENCE

Regulatory frameworks including PIPA, Data Safety Zones, and cross-border data flow mechanisms.

Sources: World Bank Digital Economy for Africa Initiative, ITU Digital Development Report (2024)

WHAT WE OFFER — KOREA IS READY TO COLLABORATE

Building Trust-Based Digital Ecosystems for Global Impact



Policy & Governance

- Data Industry Promotion Act
- PIPA (Privacy Framework)
- AI Governance & Regulation



Data Infrastructure

- AI/Data Platforms
- Data Safety Zone architecture
- Cloud & Edge utilization



30+ Years Experience

- AI/Data ecosystem building
- Human capacity building
- Cross-sector data linkage



Practical Programs

- Data Voucher program
- AI/Data Problem-Solving Bank
- Data Safety Zones

★ The Collaboration Process

1

Knowledge Sharing

Policy workshops & strategy consulting

2

Joint Implementation

Infrastructure build & pilot projects

3

Scale for Impact

Ecosystem growth & global standards

ACTIVE PARTNERSHIPS:  World Bank (Policy Report on Korea's Data Ecosystem, 2024)  ODA Projects (Digital Economy Prosperity Blueprint for Lao PDR, 2025)

FUTURE COOPERATION PROJECTS FOR DEVELOPING COUNTRIES

Korea Data Agency proposes **6 priority cooperation areas** for developing countries — leveraging Korea's proven AI data capabilities to accelerate inclusive digital transformation and sustainable economic growth.



01

AI Data Smart Farm

AI-powered precision agriculture systems using IoT sensors, satellite remote sensing, and yield prediction to address food security in agricultural-dependent economies.



02

AI Data Smart Factory

Intelligent production management, AI-powered quality inspection, and supply chain digitization to support industrial transformation in emerging economies.



03

Disaster & Safety Management

AI data-driven disaster prediction, urban facility monitoring, and early warning systems for countries facing disproportionate climate and hazard risks.



04

Data Cooperation & Trade Standardization

Cross-sector data sharing governance and international data trading standards to unlock productivity lost in fragmented ecosystems



05

AI Data Infrastructure

AI/Data platform design, AI-ready regulatory frameworks, and data literacy capacity building



06

Culture & Arts Promotion

AI-curated digital heritage preservation and cultural content platforms activating creative industries

CLOSING — FROM DATA TO IMPACT

Building Trust-Based Digital Ecosystems Together

"Let us build trust-based digital ecosystems together — for global impact, from Korea to the world."

— Byungkon Kim, Director, Department of Data Industry, Korea Data Agency (K-DATA) | KGID 2026



💡 CORE MESSAGE

- ✓ **Data** alone does not create economic value
 - ✓ **Trust** enables data to flow safely across organizations and borders
 - ✓ **Data flow** provides the foundation AI needs to scale
 - ✓ **AI** drives economic growth and sustainable development
- ★ **Korea's lesson:** Trust must be *designed* and *embedded* — not assumed

🤝 CALL TO ACTION

Korea Data Agency is ready to partner with governments, multilateral development banks, and institutions worldwide to co-build trust-based data ecosystems — delivering measurable, lasting impact for all.

Knowledge Sharing → Joint Implementation → Scale for Impact

✉ CONTACT

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