

# SUMMARY OF WORLD-CLASS LABOR MARKET INFORMATION SYSTEM: CASE STUDY ON KOREA

## *Executive Summary*

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An effective labor market information system (LMIS) provides crucial data and services to strengthen job-skills matching, inform education investments, and enable targeted workforce policies. However, many countries have only basic or nascent LMIS capabilities.

Korea's development of the Work-net platform provides an instructive case study on implementing and upgrading a future-ready, advanced LMIS. Launched in 1998 as a basic job portal, Work-net has been enhanced over 20+ years through expanding information sources, leveraging emerging technologies, integration with complementary platforms, user-centricity, data-driven policy making and continual upgrade cycles (1, 2).

Work-net now serves as the heart of a comprehensive LMIS ecosystem unifying extensive networks of public agencies, private players, data partners, and service channels (1). Some key features include 16 million jobseeker accounts, 2.2 million annual job placements, partnerships with 172 aligned organizations: 25 public institutions and local governments (ministries, the Chamber of Commerce and Industry), 11 private job portals, and 136 local Work-nets, integrations across platforms, and advanced applications like AI-powered recommendations (1).

One example is "The Work", an AI-powered job recommendation engine launched in 2018 that provides personalized job and training matches to each user based on their profile and search history. This has helped over 7,600 individuals find relevant opportunities. The Work relies on the National Job Information Platform, which consolidates data from across agencies (3).

The case study offers useful insights both for countries like Indonesia looking to transform existing basic LMIS as well as those seeking to implement advanced systems from the ground up (1, 2). By studying Korea's experience, policy makers can develop locally-relevant roadmaps for building future-ready LMIS capabilities that strengthen skills intelligence, job matching, and data-driven policies.

## *The Need for Advanced Labor Market Information Systems*

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Advanced LMIS capabilities can address persistent labor market information gaps that result in suboptimal education choices, skills mismatches, low productivity and constrained growth. They provide comprehensive real-time data on skills in demand, customized guidance on jobs and training, integrated services across programs, and strategic intelligence to support data-driven policy making (1, 2).

As multi-faceted platforms, well-developed LMIS connect diverse actors across the skills ecosystem, empower stakeholders through information and services, and unlock substantial socioeconomic returns.

### ***Case Study: Korea's Development of the Work-Net System***

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Korea implemented the following strategic initiatives that evolved Work-net from a basic job portal into an integrated, advanced LMIS:

#### **Institutional Evolution**

- Gradual transfer of oversight from MoEL to dedicated **KEIS** agency for specialized focus (1, 2)
- Localization to city/provincial **Work-Net** portals for decentralized and localized delivery (1)
- Merging of employment and welfare services under common centers since 2014 for straight-through processing (1)
- Cultivated partnerships with private job portals, employers, local governments, education bodies etc. for data sharing and coordination (1, 2)
- Launch of National Job Information Platform consolidated data from agencies and ministries (3)

*Impact:* Created robust, decentralized governance and extensive partnership capabilities

#### **Expanding Information Sources**

- Leveraged traditional administrative data, surveys, records along with non-traditional web-based data sources (1)
- Partnerships with recruitment firms and job portals for access to real-time, granular demand data (1, 2)
- Integrated big data analytics to generate actionable skills intelligence (1)
- Amendment to data sharing laws enabled integration of external data into The Work system (3)

*Impact:* Expanded system inputs for enriched analytics and intelligence

#### **Leveraging Advanced Technology**

- Adopted artificial intelligence, machine learning and big data analytics to generate personalized recommendations and insights from large-scale integrated data (1)
- Implemented chatbots, robots and AI-based techniques for automated customer service and intelligent job-candidate matching (1)
- Developed mobile apps and portals tailored to youth, women, elderly and other target groups accessing services remotely (1)

- Integrated social media channels for alternative outreach, engagement and data gathering from platform users (1)
- Pioneered use of next-generation technologies like blockchain for credentials verification and fraud prevention (1)
- Established cloud computing infrastructure for enhanced scalability, efficiency and reliability of services (1)
- Implemented advanced cybersecurity measures including encryption, access controls and multi-factor authentication to ensure privacy and data integrity (1)
- Launch of AI-powered job recommendation engine "The Work" in 2018 leveraging consolidated data and algorithms (3)

*Impact:* Transformed LMIS capabilities and enhanced user experience

### **Focus on User-Centric Design**

- Conducted user experience testing and incorporated feedback into portal redesign (1)
- Developed customized portals for target user groups based on their needs (1)
- Localization features for accessible opportunities and simplified workflows (1)
- Multi-channel user support via call centers and feedback mechanisms (1)

*Impact:* Highly responsive, user-friendly and customized platform

### **System Integration and Coordination**

- Tight integration with platforms for training, career guidance, unemployment benefits etc. (1, 2)
- Unified authentication via single ID/password enabled straight-through processing (1)
- Master databases linked user records across systems (1)
- Centralized analytics engine combined data for unified insights (1)
- Open API access provided to over 1,000 external institutions (1)

*Impact:* Interconnected system architecture reduced duplication and fragmentation

### **Strategic Role in Policy Making**

- Granular skills gap analytics at national, state and sectoral levels (1, 2)
- Program effectiveness evaluation based on LMIS data (1)
- Labor market projections to align education and training investments (1, 2)
- LMIS dashboard for real-time monitoring of outcomes (1)
- Platform to test and validate new policy ideas (1)
- Analysis of "The Work" usage data to improve relevance of recommendations and hiring outcomes (3)

*Impact:* Data-driven policy making and interventions powered by LMIS intelligence

## **Key Challenges in LMIS Implementation**

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Korea's experience highlights key issues policy makers should proactively address:

- Generating buy-in and securing leadership commitment

- Ensuring multi-year funding commitments
- Recruiting and developing specialized LMIS capabilities
- Achieving scale through incentives and mandates
- Measuring LMIS impact through usage, feedback and metrics
- Planning routine LMIS upgrades for evolution
- Managing risks around change processes
- Addressing initial data limitations and quality to enable advanced analytics
- Leading organizational change management when introducing new technologies

### *Considerations for LMIS Development in Other Countries*

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Korea's experience provides useful implications for LMIS development across countries:

- Leadership commitment, coordinated governance and partnerships are crucial foundation
- Continuous expansion of traditional and emerging data sources provides fuel for value generation
- Technology and user-centricity capabilities accelerate evolution from passive to active systems
- Integration across programs, providers and systems enables straight-through, unified services
- Positioning LMIS as a strategic policy asset helps sustain high-level commitment
- A lifecycle approach with continual enhancement cycles keeps systems aligned to evolving needs
- Importance of data quality, security and change management when leveraging AI/ML

### *Conclusion*

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In conclusion, Korea provides an inspirational model of a continuously evolving, future-focused advanced LMIS through multiple reform initiatives over two decades.

The transformational journey can provide valuable lessons for countries like Indonesia looking to upgrade basic LMIS as well as those seeking to implement such systems. Learning from Korea's experience can help accelerate LMIS progress and unlock substantial economic and social benefits.

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