

# **New Digital Technologies to be adopted in Korean Civil Service HRM**

**October 29, 2021**

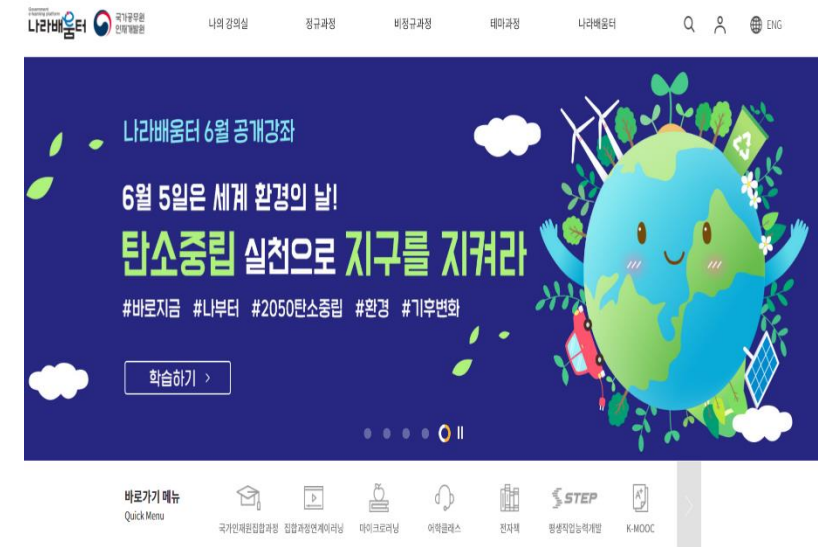


**Ministry of Personnel  
Management**

# **1. HRD Intelligent Open Platform**

# Korean Government's E-Learning system

- ▶ The Korean government's **first e-learning center** was established **in 2000** and it was upgraded to be the **current E-learning System** named “Nara Baeum Teo(National Learning System)” **in 2017**.
- ▶ More than 3,000 learning content created by the government are available on this website.
- ▶ Most of these are the **Mandatory courses** for civil servants defined in the legislation (ex. integrity, gender sensitivity), **General and Specialized Job Skills, Administrative Philosophy & Agenda**.
- ▶ They are jointly used among all the ministries.



# Environmental Change and the Limitations of Traditional Methods

## Increase in demand for non-face-to-face training amid Covid-19



☞ Covid-19 making it difficult to operate offline courses and generalizing non-contact learning

☞ Traditional offline courses representing difficulties to invite famous lecturers and for learners to travel

# Environmental Change and the Limitations of Traditional Methods

## New environment allowing easy access to contents of good quality via diverse private platforms



- In the past, civil servants' e-learning system was built based on content created by the government
- Now, private platforms, such as Youtube and Google, allow to retrieve learning information over the world and to access easily
- Content is produced and provided more rapidly and abundantly by private suppliers
- Recently provided e-learning resources are less-than-15-minute-long called micro-learning content and characterized by its efficiency and condensation

## Objective

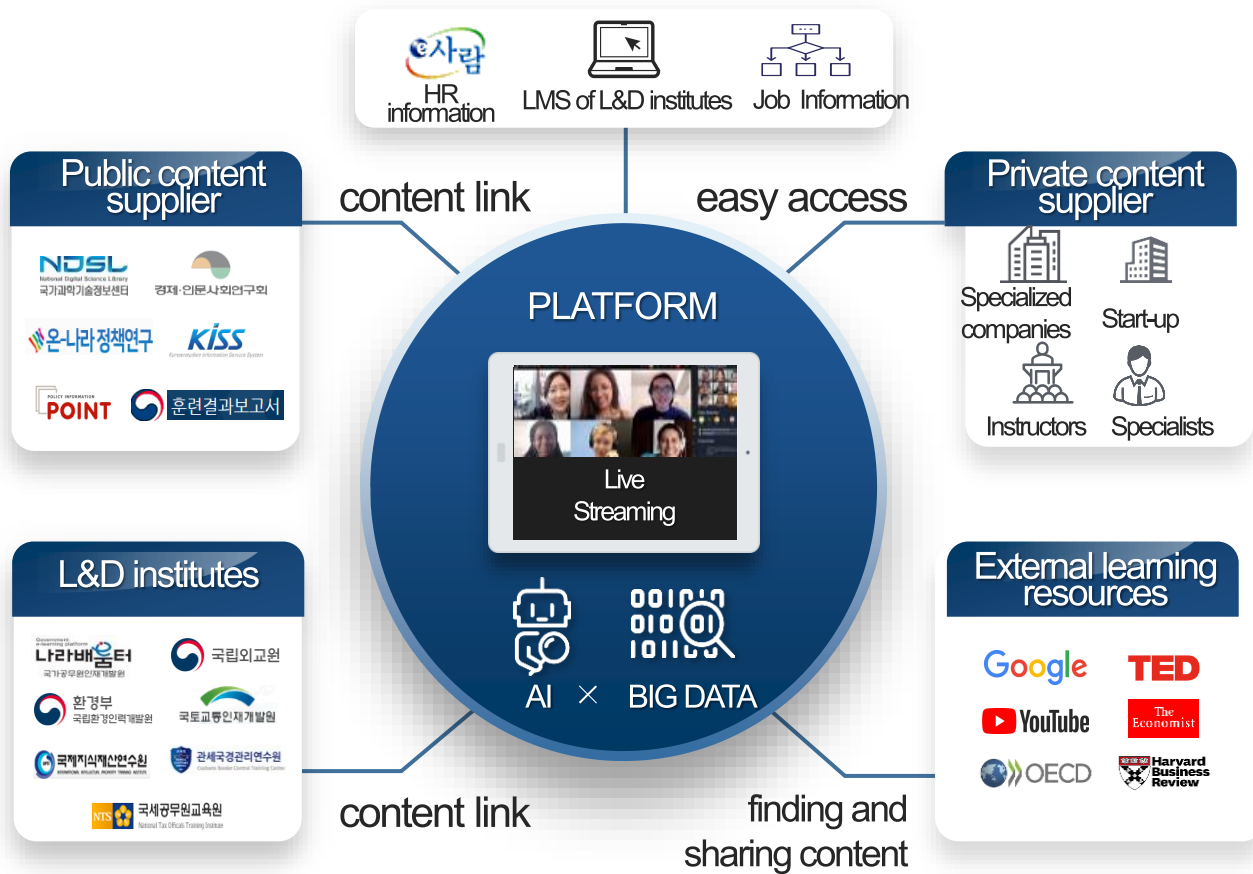
- 👉 **Provide stable online learning environment**
- 👉 **Encourage ‘informal learning’ allowing on-the-job training**
- 👉 **Use diverse learning resources supplied from both public and private sectors**



**To set up more efficient  
learning environment  
based on online platform**

# HRD Intelligent Open Platform

## Main functions



- Build **informal social learning** to encourage learners' participation and communication
- Create **learning hub** collecting and distributing a wide range of content from the public and private sectors
- Provide **personalized learning content** based on AI and big data
- Establish **real-time video learning system** enabling **two-way communication** while enhancing **security and stability**

# HRD Intelligent Open Platform



## Social Learning

Managing individual learning records displayed on the Dashboard

Sharing external learning resources such as Youtube by registering its' URL

Interacting among users by learning the content shared by others and commenting on it

※2020년 1단계까지 구축된 결과물임



# HRD Intelligent Open Platform

인재개발과 직무 관련 추천

#인재개발 #교육 #직장교육 #교육훈련 #성과 #과정설계

[미이크로] 내 성격에 맞는 리더십은? (김영일 교수) 2020년

성격과 리더십, 창조성은 어떤 관계가 있을까요? 성공하는 집단과 패배하는 집단의 차이를 통해 리더의 소양을 알아볼 수

최영단 > 875 > 696

소통과 융합의 리더십 국가공무원연수과정 2020년 1학기

'T5'가 만든 공식 전략서와 'YBM' 배움책이 만났다! 교재의 4주 완성

정아영 > 668 > 21

기술혁명과 리더십의 미래 연세대학교 한준 교수

성공하는 집단과 패배하는 집단의 차이를 통해 리더의 소양을 알아볼 수 있습니다. 훌륭한 리더의 알아봅니다.

이영 > 865 > 25

포스트코로나 시대, 변화하는 CIO의 역할

코로나19의 전 세계적 유행은 기업의 조직 구조마저 단숨에 바꾸었습니다. 기업은 하나 둘씩 온라인 플랫폼과 디지털 경제 활동 기반의 조직으로...

주승재 > 887 > 553

소통과 융합의 리더십 2 (국가공무원인재개발원 교수 황인표)

전략북도,교신F1자동차경주대회조직위원장,전북신용보증재단(재)전북테크노피

김승미 > 2457 > 653

## 관심사가 비슷한 학습자가 본 콘텐츠

인공지능이 주도하는 서비스

창의적인 발상과 적절한 마케팅 중심의 비즈니스 활동이 가능한 인공지능이 주도하는 서비스를 알아봅니다.

이영규 > 2457 > 25 > 25

Ten Sentences to Use When Dining with Foreign Government Officials

외국공무원과의 식사에서 활용할 수 있는 10가지 실용문장에 대해 알아봅니다.

정한별 > 6741 > 659 > 87

증강현실로 만나는 다양한 예술

현실이 역동적인 공간으로 변하는 방법, 증강현실로 만나는 다양한 예술에 대해 알아봅니다.

임은호 > 1457 > 258 > 74

초강대 미국을 감자

남미가 원산지인 감자 식용으로 불리며 기피하던 감자도 식용이 가능해지고 있습니다.

정영규 > > > >

지난 학습과 유사한 콘텐츠 →

에이스 직장인의 성과관리와 글쓰기 [2020-1기]

사람을 움직이는 유일한 방법, 소통과 관리[2020-1기]

성공하고 싶은가? 목소리로 승부하라

제4차 산업혁명 시대 공무원 교육 (유태오 교수)[2020-1기]

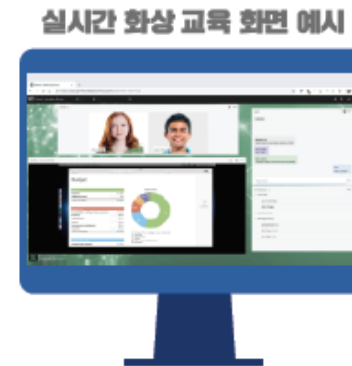
\* Products up to the present

## AI-BigData based Customized Recommendation

- ☞ Links to more than 300,000 contents provided by public and private suppliers
- ☞ AI analysis on each official's position, interest and learning records
- ☞ Recommendation of individually customized contents



## Real-time Video Lecture System



# HRD Intelligent Open Platform

## Roadmap

**1<sup>st</sup> stage (2020)**

Establishment of the  
platform infrastructure

**2<sup>nd</sup> stage (2021)**

Realization of essential functions  
Test operation by several ministries

**3<sup>rd</sup> stage (2022)**

Completion and Expansion  
to all ministries

👉 **Ongoing establishment for three years from 2020**

👉 **Test operation by several ministries from February 2021**

👉 **Expansion of the platform service to all ministries from 2022**

## **2. Intelligent Talent Referral Service**

# National Human Resource Database (NHRDB)

State-operated Database system which collects and manages information on candidates for public offices to ensure the selection of individuals for high-ranking positions based on objective data



## User Institution

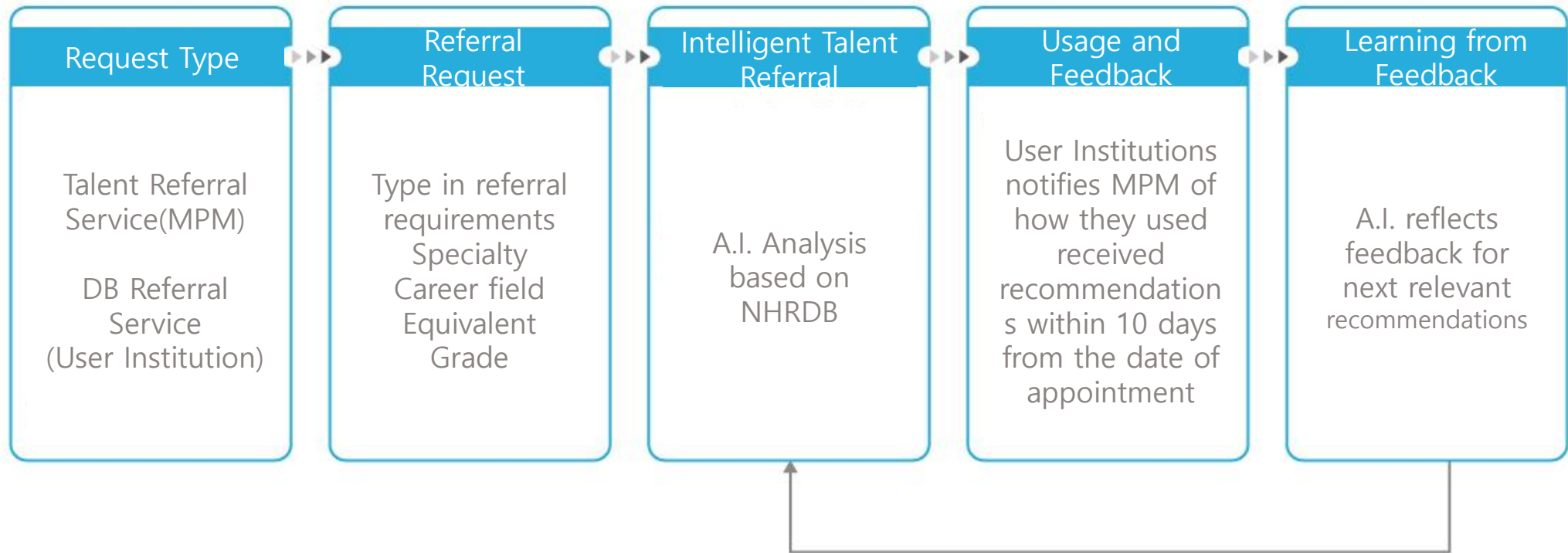
Central Gov't Ministries /  
Agencies, Local Gov'ts and  
Public Institutions



## Scope of Referral position

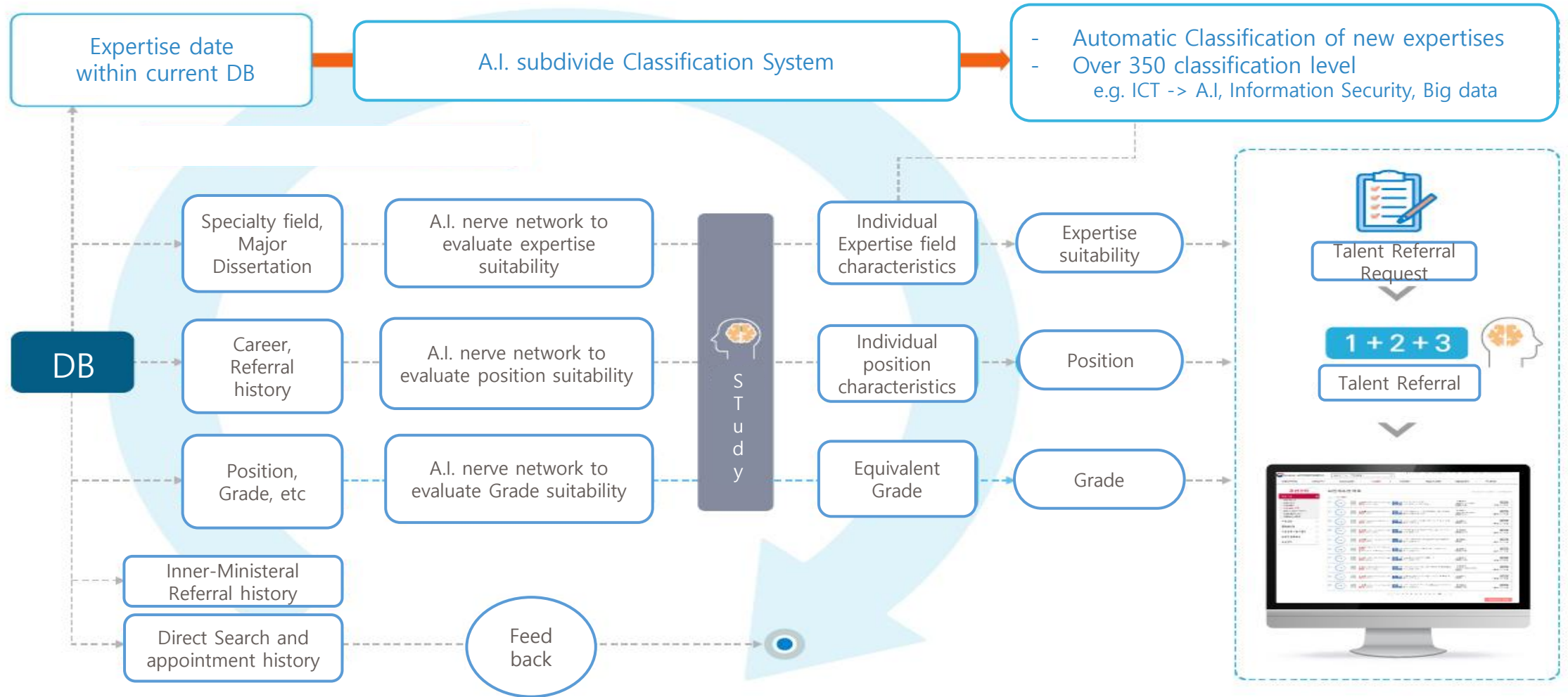
Political Service(excluding elected officials),  
Positions filled by open/public recruitment,  
Members of a state-oriented committee,  
Members of public committee,  
Examiners of public institutions

# Talent Referral Service System



A.I. studies NHRDB data and recommend candidate pool for requested positions

# A.I. Talent Referral Algorithm map



# A.I. Talent Referral

## Data, Statistics based

Limited Classification  
(31 Expertise field level)

### Major Classification

Education

ICT

Diplomat/Unification/Patriots and Veterans Affairs

Trade and commerce / Customs / Procurement

Firefighting/Disaster prevention/Weather service

Finance / Budget/Tax

- Talent Referral based on simple statistics
- Absence of management on position-suitability
- Absence of management on Grade-suitability

## AI Study based

Intelligent / A.I. based classification of expertise field

- Over 350 medium level classification of expertise field
- Expanded Talent referral enough related field analysis

Enhanced Accuracy of Talent Referral by utilizing Data-studied Algorithm

A.I. Referral service on Primary Position

- Talented Referral after AI Analysis on career characteristics

A.I. Management on position/grade suitability

# **3. Use of A.I. Technology for Recruitment**



# Recent Trends in Recruitment Practices

- 👉 **Use of Artificial Intelligence technology, Digitalization of Recruitment Process, and Un-tact/Video interview practices emerged as trend of Recruitment Innovation for the last years.**
  - **Use of A.I. tool for staff recruitment process(e.g. personal statement screening/scoring, A.I. Interview) practiced among public institutions and private companies.**
  - **A.I. Interview tool reflects respond text, verbal speed/tone, intonation, eyeline, and facial muscle reactions, etc. for scoring each candidate.**
  - **Samsung conducted first online recruitment test which invited job applicants to take the test at home using their personal computers.**
- 👉 **Trend accelerated from companies' demand to administer large scale recruitment test in Pandemic situation, and the recognition that use of A.I. technology can support fairer recruitment**

# Digital tools used for Civil Service Recruitment in Korea

## Announcement

- Job openings and exam announcements are provided online through Government-run portals.
- Online Civil Service Job Fairs adopting Metaverse tools run by MPM.

## Document screening

- Some ministries/agencies administer document screening to detect plagiarism

## Written test

- MPM provide computer to support handicapped applicant's written test(for essay-type test)

## Interview test

- MPM provide video interview for self quarantine applicants

# Applicability Review on A.I. use for Civil Service Recruitment

**Is A.I. technology effective for selecting talented civil servant?  
How can it be used to reduce cost and support selection?  
What should government consider/prepare before adopting the A.I. tool?**

## **Expectations**

- Fairer/more transparent recruitment
- Enhanced accessibility
- Cost reduction for recruitment
- More efficient process management

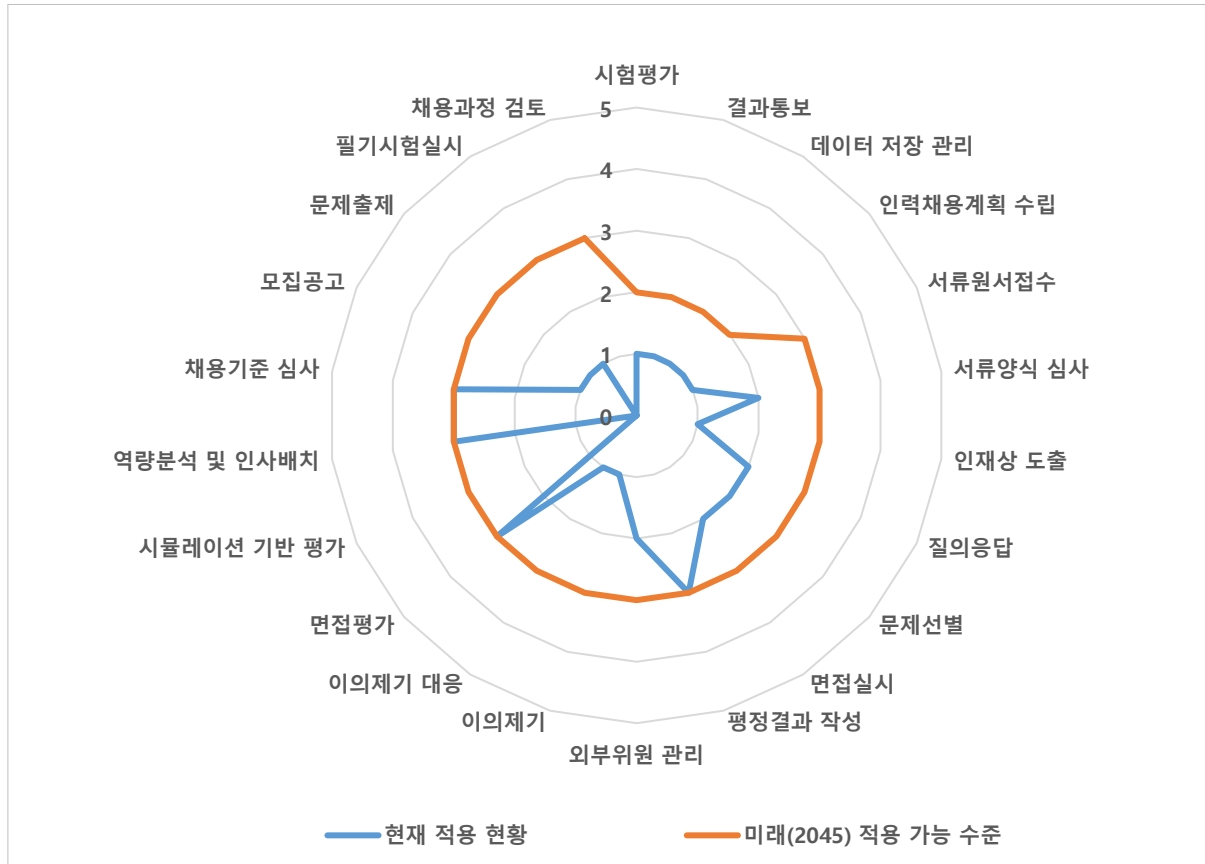
## **Worries**

- Validity/credibility of Algorithm
- Issue of Fair management of the DB
- Data Storage and Privacy

# Applicability Review on A.I. use for Civil Service Recruitment

## 👉 Technological perspective

- Current level of A.I. technology can provide data-based opinion for interviewers' reference
- A.I. technology can be advanced/applied to most of recruitment process by 2045



## Application principle/requirement

Transparency of Data/Algorithm

Explainability of A.I.'s judgement Criteria

Reliability of A.I.'s judgement

# Applicability Review on A.I. use for Civil Service Recruitment

## 👉 Legal and Institutional Foundations

- Along with overall reform of the recruitment system, Legal foundation on the introduction of A.I. technology could be necessary.
- Basis/measures to manage applicant data transparently for proper purpose, and to securely store/use them to update the Algorithm
- Regulations on responsibility issue related with the result from the A.I. use

👉 Level of technical advancement, Application cost(Data management, Platform/tool development, etc), Level of applicant's Embracement, and other issues should be considered as well.

# Thank you

