

## DGCC newsletter #07

**DGCC(Digital Government Cooperation Center)** is a platform created by Korea and partner countries to promote digital government together. This is the newsletter from 2023 DGCC

### Message in Commemoration

Laos

Costa Rica

Korea

### DGCC in Serbia

Joint Cooperation Project

Activities of DGCC in Serbia

Digital Government Trends of Serbia

### DGCC in Tunisia

Joint Cooperation Project

Activities of DGCC in Tunisia

Digital Government Trends of Tunisia

### DGCC in Uzbekistan

Joint Cooperation Project

Activities of DGCC in Uzbekistan

Digital Government Trends of Uzbekistan





# DGCC in Laos

Joint Cooperation Project

Activities of DGCC in Laos

Digital Government Trends of Laos



# DGCC in Cambodia

Joint Cooperation Project

Digital Government Trends of Cambodia



# DGCC in Paraguay

Joint Cooperation Project

Activities of DGCC in Paraguay

Digital Government Trends of Paraguay



# DGCC in Indonesia

Joint Cooperation Project

Activities of DGCC in Indonesia

Digital Government Trends of Indonesia



# DGCC in Peru

Joint Cooperation Project

Activities of DGCC in Peru

Digital Government Trends of Peru



# DGCC in Costa Rica

Joint Cooperation Project

Activities of DGCC in Costa Rica

Digital Government Trends of Costa Rica

# DGCC newsletter #07

## Message in commentoration

### Korea

---

#### ■ Season's Greetings from NIA's President as the Year Comes to a Close

Dear Esteemed Digital Government Officials and Colleagues,

As we bid farewell to 2023, I extend heartfelt gratitude for your unwavering support and collaboration with the Digital Government Cooperation Centers.

Throughout 2023, the world encountered the significant challenge of digital transformation and opened up a new horizon for digital innovation. Collaborating with nine partner countries globally, the NIA united forces through the Digital Government Cooperation Center, playing a pivotal role in responding to the evolving landscape of digital governance and spearheading the journey toward the future.

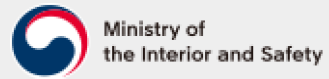
As we look ahead to 2024, the NIA reaffirms its commitment to strengthening international cooperation, aligning with the rapid currents of global digital transformation. Our focus continues to center on leveraging digital technologies to deliver benefits to our citizens.

We greatly appreciate your cooperation, and communication throughout 2023. As we stride into the new year, we eagerly anticipate further advancements and accomplishments in the realm of digital governance.

Wishing you a Happy New Year!

Warm regards,

Jong Sung Hawang  
President of National Information Society Agency





# Laos

---

## ■ Greetings from the Lao Ministry of Technology and Communications

On behalf of the Ministry of Technology and Communications of the Lao People's Democratic Republic, I would like to express my sincere gratitude for the Korean government's efforts in the establishment and operation of Laos-Korea Digital Government Cooperation Center (DGCC) in Vientiane.

This splendid Laos-Korea DGCC, which opened its doors in July 2023, aims to foster development and economic growth within the realms of digital government and to enhance cooperation between Laos and Korea. I recognize that some strides are already being made in two significant cooperative projects: the establishment of a roadmap for digital government services in Laos, and the development of strategies to enhance Laos' standing in the United Nations' e-Government Development Index. Looking ahead, we are committed to exploring diverse cooperation programs in the coming years.

We eagerly anticipate the expansion of various follow-up projects, fostering closer collaboration between the Lao and Korean governments, rooted in the initiatives advanced through the DGCC.

The year 2024 holds special significance as Laos assumes the chairmanship of ASEAN, and 2025 marks the 30th anniversary of the reestablishment of diplomatic relations between Korea and Laos. These milestones underscore a pivotal juncture in our relationship, one that calls for us to chart a course for the next 30 years and beyond. We pledge our unwavering commitment to further develop Laos-Korea relations as win-win cooperation partners.

In this sense, I am very pleased to see Korea and Laos aligning their efforts towards the shared goals of digital transformation and sustainable development. In particular, the DGCC is expected to play a key role in expanding bilateral cooperation in the domain of digital government.

Congratulations once more on the inauguration of the Digital Government Cooperation Center!

I wish each and every one of you good health and enduring happiness and happy new year 2024.

**Mr. Keovisouk SOLAPHOM**  
Vice Minister



# Costa Rica

---

With the signature of the memorandum of understanding, the establishment, the operation of the Digital Government Cooperation Center of Korea-Costa Rica, and the act of inauguration of the mentioned center completed in the Ministry of Science, Innovation Technology and Telecommunications (MICITT), it was formalized the start of a strategic alliance that will enable us to evolve into a real digital government.

The MICITT deeply thanks the Republic of South Korea's government, the National Information Society Agency(NIA) and specially Dr. Nam with the team of experts designated to different topics, whom they are contributing for it to reach a good port.

On these months, of hard work we have accomplished several activities on the search to advance on the topics in our country such as Digital identity, Digital Health, and Digital accessibility, fomenting an articulated work and taken altogether from the Digital government direction and Digital Signature Certification and the Digital Government Cooperation Center Korea-Costa Rica.

It Is worth mentioning the conformation of the Digital ID National Hub, on which it is pretended to have an interinstitutional work with the identity suppliers of the country, such as Supreme Election Court, General Directorate of Migration and Immigration and the Ministry of Foreign Affairs and Worship.

**Aldo Alfredo Gonzalez Miranda**  
**Director of Digital Governance and Digital Signature Certifiers**  
**Ministry of Science, Innovation, Technology and Telecommunications of Costa Rica**





## Joint Cooperation Project

---

### ■ The Korea-Serbia Digital Government Project in 2023

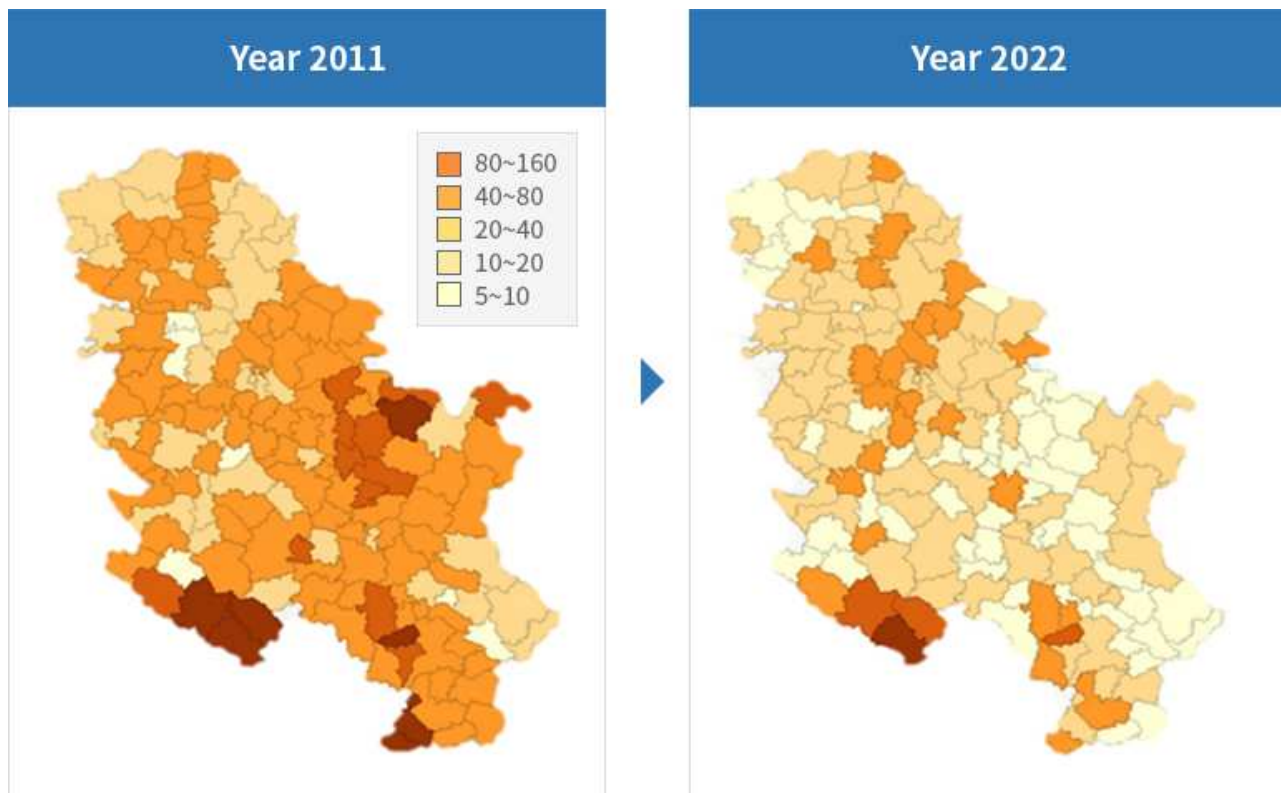
- AI-Based demographic systems project in Serbia
- AI Capacity Building Program

The Korea-Serbia Digital Government Cooperation Center is currently undertaking an initial feasibility study for the development of a population movement prediction system based on big data. This initiative is part of the 2023 joint cooperation project between Korea and Serbia.

The rationale for opting for population-related services stems from the acknowledgment that, much like Korea, Serbia has identified population decline as a policy priority and is exploring diverse approaches to tackle this issue.

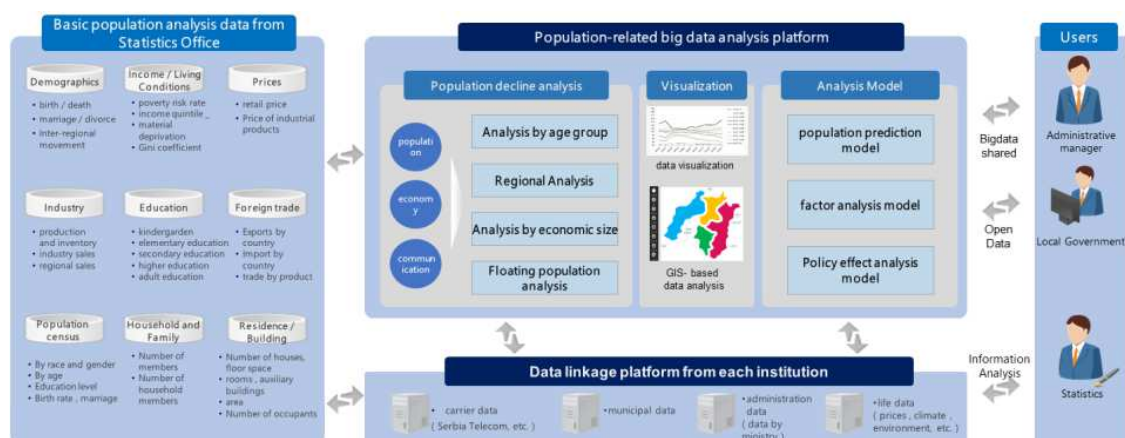
In response to these policy concerns, we have created a population movement prediction model already in operation within Korea. As part of our efforts, we have initiated a pre-feasibility study for a population movement analysis system to support and enhance this model.

Indeed, Serbia has experienced a significant population decrease of 500,000 individuals (6.9%) from approximately 7.4 million in the 2011 census to about 6.9 million in the 2022 census. The issues of population decline and outward migration are profoundly serious from Serbia's standpoint and are acknowledged as pressing problems.



The primary focus of the 2023 Serbia Population Movement Analysis System Project lies in designing a system for statistical analysis of population movement, developing a population movement prediction model utilizing mobile data, and validating the model through empirical data.

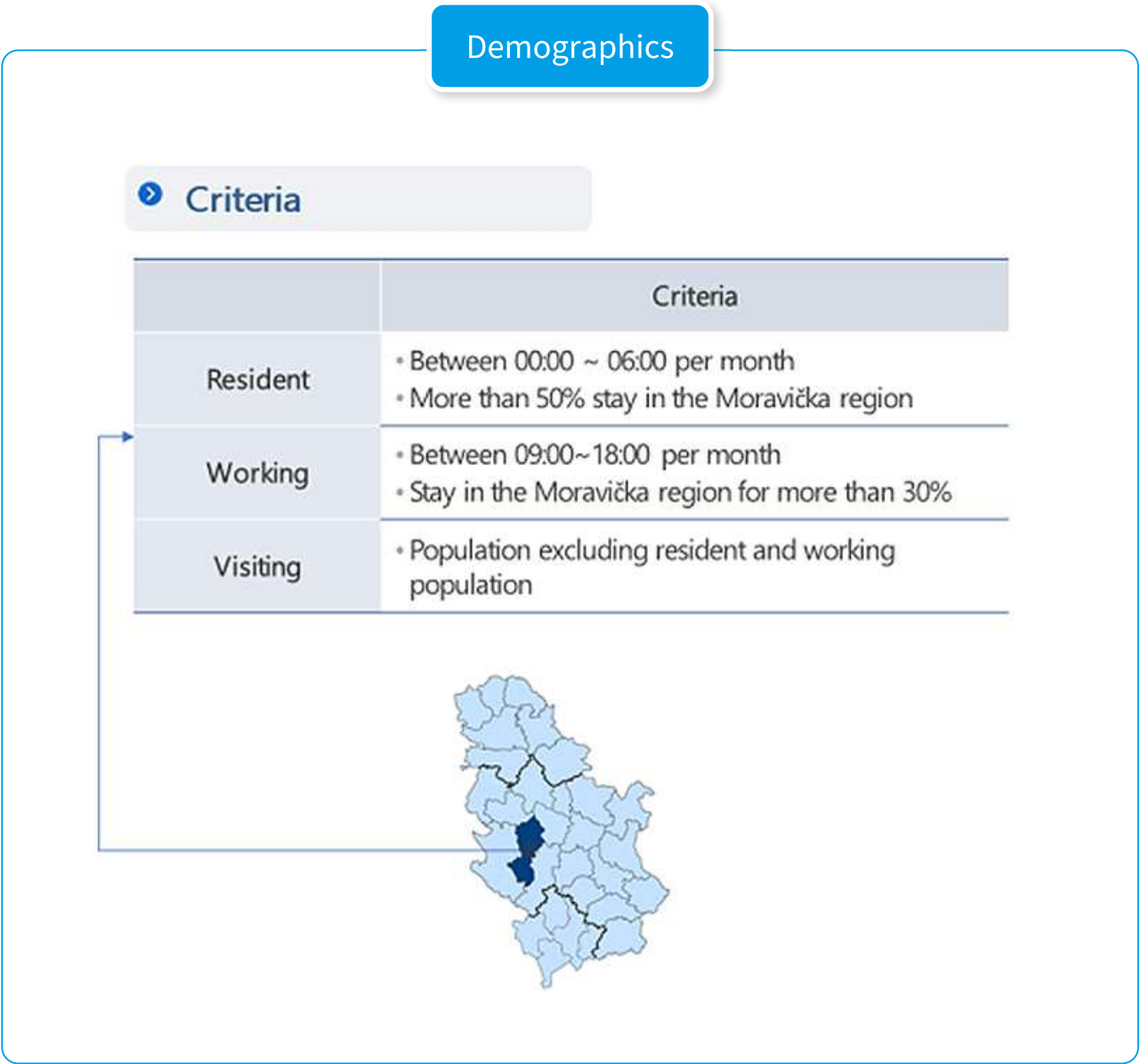
### Platform Conceptual Design(Draft)



A pivotal aspect of this project is the ground breaking use of mobile data for the development and validation of population movement prediction models, marking the first instance of such an approach in Serbia.

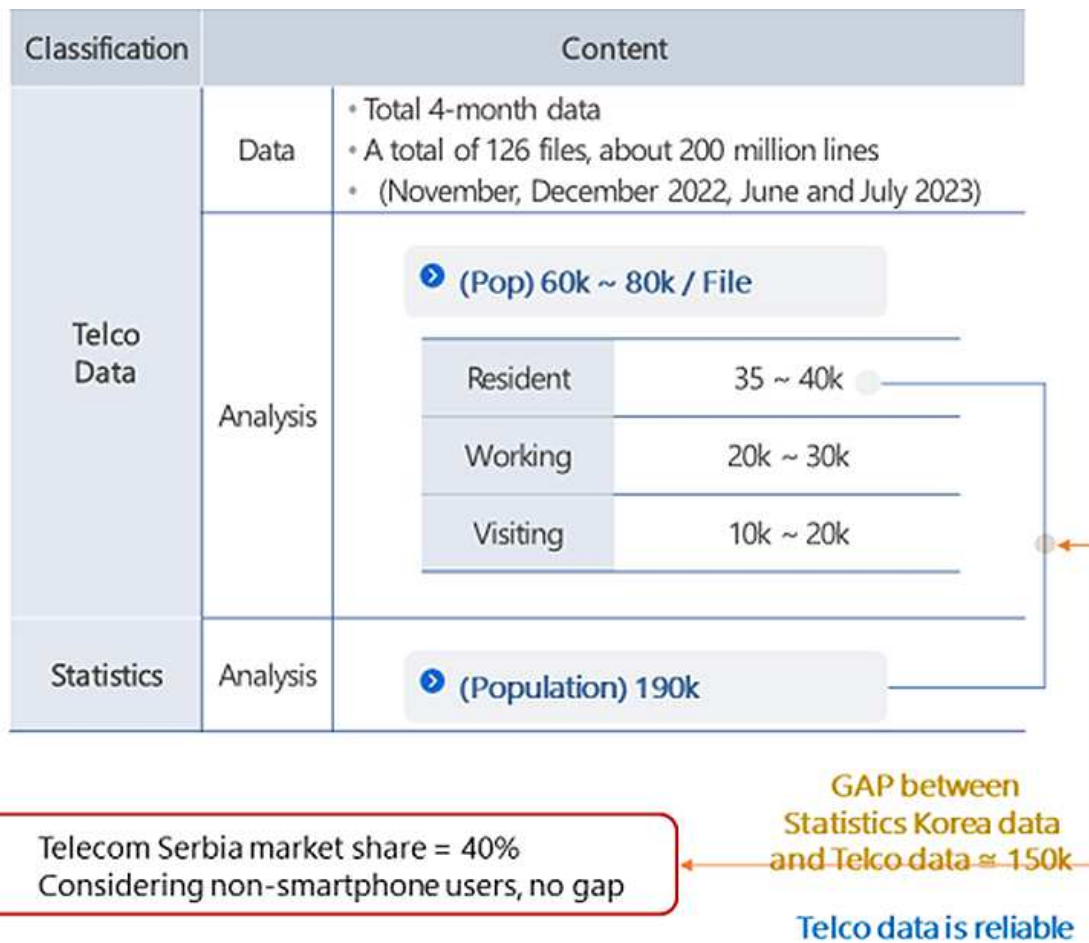
Leveraging mobile communication data empowers the Serbian government to transcend the constraints of conventional census methods, allowing for real-time tracking of population growth and decline trends. Moreover, it aids in identifying transient populations based on seasonal variations, monthly patterns, and distinctions between weekdays and weekends.

The foundation and mobile data required for the development of a population movement analysis model were established following the methodology outlined below.





## Telco Data Exploratory Data Analysis(EDA) Status



Indeed, following the application of a population movement model utilizing mobile data in specific cities in Serbia during November 2022 and July 2023, the ensuing results were obtained.

## Visualization

Map population changes in Moravicka Oblast between November 2022 and july 2023

City	Nov, 2022	July, 2023
Gornji Milanovac Municipality	235	91
Cacak City	246	197
Lucani Municipality	225	279
Ivanjica Municipality	244	381
Moravicka total	950	948

Nov, 2022



July, 2023



The Serbia Digital Government Cooperation Center intends to unveil a range of population movement prediction statistical services stemming from this project, leveraging newly acquired mobile data.

As part of another collaborative project, the DGCC provided artificial intelligence (AI) training for public officials in Serbia. It proved to be a valuable period during which we developed an educational curriculum centered on lectures and practical training, garnering a highly positive response from Serbian public officials. The training was designed to cover data and machine learning fundamentals, practical exercises in data analysis and prediction using Python, and proficiency with analysis tools. Furthermore, we engaged in creative thinking through the Design Thinking Workshop and honed our skills in identifying policy tasks based on data and machine learning.



# Activities of DGCC in Serbia

---

## ■ Current Status of the Smart Metering Construction Project in Belgrade

In Serbia, as in other European nations, the energy conservation policy arising from the Russian-Ukrainian war is considered a paramount policy imperative.

While energy conservation is of utmost importance, the awareness of energy-saving among the Serbian populace remains notably low, primarily attributed to the aging energy billing system and energy consumption measurement meters in Serbia.

For instance, in scenarios where 100 households reside in an older apartment complex, typically only one meter is in place to measure the energy consumption for all 100 households. We employ a billing system where energy consumption is divided among households, each being charged 1/100 of the total energy consumed by the entire apartment complex.

Consequently, residents in Serbia have limited incentive to use energy sparingly.



Analog Meter



Smart Meter

Acknowledging this issue, the Serbian government plans to address it by initiating a smart meter distribution project focused on the cities of Belgrade and Novi Sad, with the assistance of the European Bank for Reconstruction and Development (EBRD).

Through this initiative, Serbia aims to upgrade around 205,000 smart electricity meters along with the associated hardware and software. Establishing a smart metering infrastructure is anticipated to enhance the efficiency of the power



transmission and distribution grid system, facilitate the expansion of new and renewable energy sources, and make a substantial contribution to reducing carbon emissions from these sources.

# Digital Government Trends of Serbia

## ■ Establishment of the New Korea-Serbia Digital Government Cooperation Center

The Korea-Serbia Digital Government Cooperation Center, a collaborative initiative between the Ministry of the Interior and Safety of Korea and the Serbian Information Technology & e-Government Office, is slated to conclude in December 2023.

Earlier this year, a Memorandum of Understanding was executed between the Korean Ministry of Public Administration and Security and the Serbian Ministry of Government Administration and Home Affairs. The agreement outlines the establishment and operation of a new Digital Government Cooperation Center, spanning a three-year period from 2024 to 2026.

With the agreement finalized, the Korean and Serbian governments are making preparations to inaugurate a new Digital Government Cooperation Center.

The recently established Korea-Serbia Digital Government Cooperation Center aims to undertake projects including consultancy on formulating digital government development strategies, creating plans for enhancing digital government laws and systems, and bolstering capabilities for sharing administrative information. Furthermore, there are plans for a collaborative project between the two nations in the burgeoning field of smart cities, which has garnered heightened attention in Serbia in recent times.

	Prospective Candidates for Detailed Joint Collaboration Projects (Draft)
1st (2024)	- Identifying priority tasks for e-government projects by consulting on Serbia's digital government development strategy, establishing annual implementation roadmaps, and moreother tasks
2nd (2025)	- Preliminary Feasibility Study for the Formulation of a Smart City Development Strategy and Pilot Projects
3th (2026)	- Piloting the Development of a Smart City Service Model

# DGCC newsletter #07

## DGCC in Tunisia

### Joint Cooperation Project

---

#### ■ The Korea-Tunisia Digital Government Project in 2023

- Pilot Project on Online Platform for Monitoring the Implement of the Government Audit Reports Recommendations
- Pilot Project on Advanced Ticketing and Payment System(ATPS) of Mass Transportation

The Tunisia Digital Government Cooperation Center is working in collaboration with the e-Government Unit of Prime Minister's Office, the Ministry of Transportation, and the High Committee of Administrative and Financial Control (HCCAF) to execute the 2023 Digital Government Joint Cooperation Projects.

The first project centers on setting up a system to oversee the implementation of recommendations outlined in Tunisia's public audit reports. The High Committee of Administrative and Financial Control, working alongside other relevant audit agencies, conducts audits across ministries and public institutions, producing corrective recommendations. These recommendations are annually submitted to the President, fostering transparency and reliability within Tunisia's public sector. Nevertheless, the lack of standardization posed challenges, compelling the Tunisian government to engage in a collaborative effort with the Cooperation Center on a project to systematize and streamline this process.

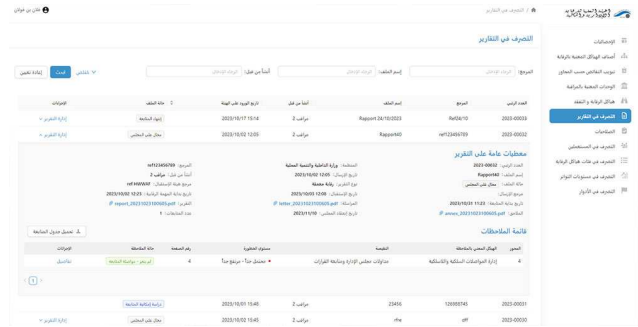
The Cooperation Center joined forces with a Korean digital government company and Tunisian experts experienced in projects with the HCCAF. Together, they have redefined existing processes to ensure a seamless integration of the audit system. The completed system, recently developed, will be deployed on the National Data Center of Tunisia (CNI) Server and is scheduled to commence operations early next



year. This system is anticipated to enhance audit efficiency, thereby fostering a more transparent and reliable Tunisian government.



HCCAF meeting for the system development



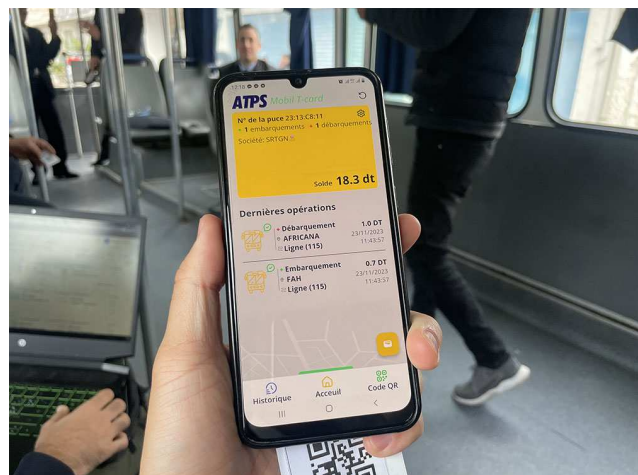
Screen of the Audit Monitoring system

The second task involves a collaboration with the Tunisian Ministry of Transportation on a pilot project to automate the public transportation fare payment system. The Ministry has been planning and modernizing various aspects of public transportation systems, including services like passenger operation information, automated fare payment systems, and online reservation systems. Building upon the blueprint developed with the Cooperation Center for the public bus fare payment system last year, they are now in the process of implementing and testing the system.

The current fare payment system for Tunisia's public buses relies on manual payment methods, where conductors collect fares or paper tickets from passengers at the door. However, the outdated process has triggered a series of setbacks, such as bus departure delays, safety risks, and unnecessary labor inefficiency. To revolutionize this, the Ministry of Transportation and the Cooperation Center have developed three applications in collaboration with Korean companies and Tunisian development experts. Terminals have been installed on buses, enabling passengers to pay using transportation cards or mobile applications with QR codes or NFC functions. These three applications include a passenger application for fare payment, a back-office program for the transportation company to manage passenger status, and an application enabling the terminal to recognize passengers' transportation cards.



HCCAF meeting for the system development



After completing the pilot system, the Cooperation Center conducted tests to apply it to bus routes of regional transportation companies in different zones across Tunisia. This process involved dividing Tunisia into five zones, including the capital Tunis, and selecting bus routes in representative cities of each zone (Kairouan, Sfax, Nabeul, and Jendouba) for testing. Bus companies from neighboring areas also participated in route tests, contributing to system promotion and educational effects. Despite initial doubts about the feasibility of system implementation, employees of transportation company actively engaged in testing, acknowledging the benefits of the pilot system.



On-site Testing for the pilot ATPS system

Future plans involve exploring the potential implementation of projects to add features to the system built in this project, such as providing passengers with real-time bus location information utilizing GPS.

# Activities of DGCC in Tunisia

---

## ■ Tunisia Digital Government Capacity Building Invitational Program

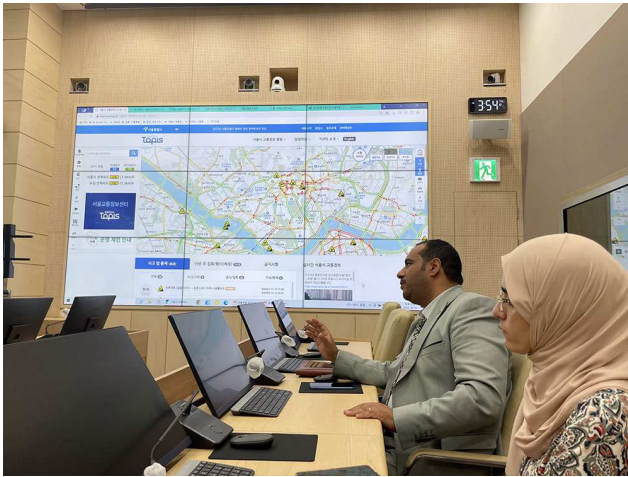
The Tunisia Cooperation Center conducted an invitational program for digital government capacity building, targeting public officials responsible for digital government from the Prime Minister's Office Electronic Government Agency and relevant ministries and institutions. The participants were selected based on their relevance to the ongoing projects of the Cooperation Center.

While engaged in enhancing Tunisia's transportation system, the DGCC had the opportunity to accompany Tunisian Ministry of Transportation officials on a visit to Korea's public transportation and control systems. They especially visited TOPIS, the Seoul Traffic Information Center, where they gained insights into multi-level information provision systems for public transportation passengers, transfer systems, and inconvenience resolution through CCTV control. This visit provided valuable insights for the Tunisian Ministry of Transportation, which is actively pursuing improvements to the transportation system, including the fare payment system, from the perspective of passengers.

Last year, the DGCC successfully concluded an MoU (Memorandum of Understanding) between Korea's National Information Resource Service (NIRS) and Tunisia's National Information Center (CNI). CNI hosts various digital government systems for the Tunisian government, including the e-Procurement System (TUNEPS) and the e-Petition Portal (e-People), developed through previous collaboration. Following the MOU signing between the two countries' data centers, CNI officials had the opportunity during this training to gain a more in-depth understanding of how NIRS in Korea integrates and manages the computing resources of various government departments and public agencies.

Moreover, the training participants received briefings on Korea's digital government policies and best practices, acquiring a comprehensive understanding of how the central government is planning and realizing digital government initiatives. They also visited the Digital Government Exhibition Center and Osan City to experience firsthand how policies are being implemented into concrete services for citizens. This knowledge is expected to greatly assist Tunisian government officials in planning new cooperation projects and setting directions for the Center's operation until 2025.







# Digital Government Trends of Tunisia

## ■ Tunisia AI Public Startup Technology and Business Trends

The Cooperation Center held a meeting with Tunisia startup iDaraty to understand the ongoing efforts of the Tunisian government and startups in jointly improving public digital government services. iDaraty primarily specializes in collecting public data and rearranging and statistically processing it to render it useful and valuable for general citizens.

Their prominent services include the Arkam platform, which collects and automatically processes information from various sources, such as public media, publications from higher education institutions, data published by public agencies, and statistics and news from international organizations like the OECD and World Bank. Utilizing AI technology, the platform reprocesses the collected information, enabling users to easily access and utilize important news and statistical data.

iDaraty also aims to provide citizens with easy access to information about laws and regulations. Tunisia's government, through the Information Disclosure Law, aims to disclose all legal information to the public. In line with this, iDaraty has secured and provided over 10,000 pieces of textual legal information. The service, launched recently, garnered substantial interest and demand, with over 6,000 citizens subscribing within 48 hours through social media.



Exemplary services of iDaraty (Arkam and 9anoun)

iDaraty's website also offers guidance on procedures for using public services in diverse scenarios, such as moving to a different region or losing a wallet. It compiles information on public processes categorized by theme like travel, starting a new company, and matters related to automobiles.

Tunisian startups, including iDaraty, are striving not only to heed the opinions of the government and citizens but also to establish systems leveraging feedback from both sides for monitoring and improvement. iDaraty is contemplating future projects, such as an ODA project to evaluate the digitalization across all public

institutions and a project to monitor the recommendations of public audit reports. These align with the projects previously established by the DGCC, such as the 'Online Service Evaluation Automation System (MEQUAES)' and the 'Public Audit Report Recommendation Monitoring System,' creating synergies. Consequently, the DGCC and the e-Government Unit plan to explore potential opportunities for future collaboration with Tunisian startups.



DGCC Meeting with Tunisian Startup iDaraty



# DGCC newsletter #07

## DGCC in Uzbekistan

### Joint Cooperation Project

---

#### ■ The Korea-Uzbekistan Digital Government Project in 2023

- Analysis of UN E-Governments Survey 2022 and Establishment of e-Government Roadmap
- Developing Strategies to Enhance the Use of e-Government Portal

The governments of Korea and Uzbekistan have agreed to pursue several joint cooperation projects through the Joint Cooperation Committee in 2023.

This year's joint cooperation tasks between the two countries encompass three key initiatives: “UN e-Government Development Index Analysis and Establishment of Roadmap,” “Establishing a plan to activate the use of e-government portal,” and “Uzbekistan Digital Government Invitational Training.”





The initiative "UN e-Government Development Index Analysis and Establishment of Roadmap" showcased a notable improvement in its ranking, rising from 87th place in 2020 to 69th in 2022. This progress was achieved with Korea's assistance in evaluation response support in 2021.

As a result, the Ministry of Digital Technology in Uzbekistan opted to collaborate with Korea in order to devise guidelines and a roadmap to enhance its standing at UN e-government evaluation, aiming for ensuring sustainable e-government development.

To enhance the UN e-government Development Index analysis response system and set up guidelines, the TII and HCI statistical data were verified, leading to the successful establishment of the evaluation response system by the Uzbekistan government.

By developing simulation tools for each e-Government indicator, providing training to practitioners, and producing guidelines for responding to e-Government evaluations, Uzbekistan has established a robust groundwork. This foundation enables the country to consistently respond to UN e-Government evaluations.

Furthermore, based on the analysis of 22 services (such as business registration, licensing, birth and death records) and 5 categories (IF, SP, CP, TEC, EPI) using the UN e-Government OSI analysis, a roadmap was formulated to promote the development of Uzbekistan's e-government.



В Оценке электронного правительства ООН 2022 года метод оценки в области онлайн-услуг будет более подробным, а также будет добавлена оценка в области охвата цифровыми технологиями, проблем COVID-19, городских онлайн-услуг и открытых общедоступных данных.

Оценка электронного правительства ООН в 2022 году		Результаты оценки электронного правительства ООН в Узбекистане																																	
<p><b>Основные изменения в оценке за 2022 год</b></p> <p><b>Изменение метода оценки площади OSI</b></p> <ul style="list-style-type: none"> <li>• (ранее) 109 пунктов, связанных с предоставлением онлайн-услуг для государств-членов (оценка Да/Нет)</li> <li>• (Изменить) Классифицировать области онлайн-обслуживания по 5 областям, применять веса и собирать баллы для каждой области (оценка «Да/Нет» и оценка по шкале 0–3).</li> </ul> <ol style="list-style-type: none"> <li>1) Институциональная основа (10%)</li> <li>2) Предоставление услуг (45%)</li> <li>3) Предоставление контента (5%)</li> <li>4) навыки (5%)</li> <li>5) Взаимодействие в Интернете (35%)</li> </ol> <p><b>Доступность интерактивного сервиса</b> Применить оценку по шкале от 0 до 3 баллов (Не предоставлено / единый портал / ссылка предоставлена / одновременное онлайн и офлайн предоставление)</p>		<p><b>Результаты оценки</b></p> <table> <tr> <th>Страна</th><th>EGDI 2022 (рейтинг)</th><th>EGDI 2020 (рейтинг)</th><th>изменение рейтинга</th></tr> <tr> <td>Казахстан</td><td>0,8628 (28)</td><td>0,8375 (29)</td><td>1 ▲</td></tr> <tr> <td><b>Узбекистан</b></td><td><b>0,7265 (69)</b></td><td><b>0,6665 (87)</b></td><td><b>18 ▲</b></td></tr> <tr> <td>Кыргызстан</td><td>0,6977 (81)</td><td>0,6749 (83)</td><td>2 ▲</td></tr> <tr> <td>Средний показатель по Центральной Азии</td><td>0,6543</td><td>0,6094</td><td></td></tr> <tr> <td>Средний показатель мира</td><td>0,6102</td><td>0,5988</td><td></td></tr> <tr> <td>Таджикистан</td><td>0,5039 (129)</td><td>0,4649 (133)</td><td>4 ▲</td></tr> <tr> <td>Туркменистан</td><td>0,4808 (137)</td><td>0,4034 (158)</td><td>21 ▲</td></tr> </table> <p>• Занял 69-е место в 2022 году, поднявшись на 18 позиций по сравнению с 2020 годом.</p> <p>• Средний мировой показатель 0,6102, средний показатель по Азии выше как 0,6493, так и среднего регионального показателя Центральной Азии (0,6542).</p> <p>• Относительно большой разрыв с Казахстаном, который занимает первое место в Центральной Азии.</p>		Страна	EGDI 2022 (рейтинг)	EGDI 2020 (рейтинг)	изменение рейтинга	Казахстан	0,8628 (28)	0,8375 (29)	1 ▲	<b>Узбекистан</b>	<b>0,7265 (69)</b>	<b>0,6665 (87)</b>	<b>18 ▲</b>	Кыргызстан	0,6977 (81)	0,6749 (83)	2 ▲	Средний показатель по Центральной Азии	0,6543	0,6094		Средний показатель мира	0,6102	0,5988		Таджикистан	0,5039 (129)	0,4649 (133)	4 ▲	Туркменистан	0,4808 (137)	0,4034 (158)	21 ▲
Страна	EGDI 2022 (рейтинг)	EGDI 2020 (рейтинг)	изменение рейтинга																																
Казахстан	0,8628 (28)	0,8375 (29)	1 ▲																																
<b>Узбекистан</b>	<b>0,7265 (69)</b>	<b>0,6665 (87)</b>	<b>18 ▲</b>																																
Кыргызстан	0,6977 (81)	0,6749 (83)	2 ▲																																
Средний показатель по Центральной Азии	0,6543	0,6094																																	
Средний показатель мира	0,6102	0,5988																																	
Таджикистан	0,5039 (129)	0,4649 (133)	4 ▲																																
Туркменистан	0,4808 (137)	0,4034 (158)	21 ▲																																
<p><b>Основные моменты оценки 2022 г.</b></p> <ul style="list-style-type: none"> <li>• Распространение вопросника государств-членов (MSQ), включая вопросы, связанные с доступом к цифровым технологиям, реагированием на COVID-19 и восстановлением</li> <li>• Предмет оценки уровня городских онлайн-услуг (LOS) (внедряется с 2018 г.) Расширение до 193 городов и увеличение до 86 оценочных показателей</li> <li>• К индексу открытых государственных данных Измерение степени открытости публичных данных в странах-членах (пилотное измерение с 2020 г.)</li> </ul>																																			

For the initiative “Establishing a plan to activate the use of e-government portal,” Uzbekistan is promoting the use of e-government to improve government efficiency and public convenience by establishing an e-government portal (my.gov.uz). In pursuit of this project, the DGCC assessed and analyzed the awareness and usage status of Uzbekistan's e-government portal to develop indicators focusing on critical aspects such as accessibility, convenience, and usability for major e-government services, and perform a level diagnosis. Based on this, short-term, mid-to long-term strategies were devised to facilitate the utilization of e-government service, and educational and promotional measures to increase awareness were proposed.

Under the initiative of Uzbekistan Digital Government Invitational Training, Uzbekistan public officials were invited to Korea from September 2 to September 9. Throughout their visit, they engaged in diversified discussions on various topics including the Ministry of Personnel Management's Electronic Personnel Management System (e-person), AI technology and its use cases, and the Board of Audit and Inspection. They also visited the KOMSCO to learn about digital ID and attended lectures on electronic audit systems (Baron) and innovative use of public data.

## 01 Опрос об осведомленности и статусе использования портала электронных государственных услуг

III. Разработка плана по активизации использования портала электронного правительства

За последний год доля респондентов, пользующихся услугами электронного правительства, составила всего 25% (500 человек). О портале электронных государственных услуг знали 52,1% респондентов, причем с возрастом осведомленность имеет тенденцию снижаться.



NIA NATIONAL INFORMATION SOCIETY AGENCY

15

KDS Консорциум

Additionally, they visited the National Information Resources Service and Duzon Data Center to gain insights into the construction of a digital government data center in Uzbekistan, where Korea's digital government know-how and experience were shared.





# Activities of DGCC in Uzbekistan

## ■ Activities of the Digital Government Cooperation Center

Uzbekistan is gearing up to implement an integrated digital platform for government agencies and organizations at all levels in accordance with the presidential decree. The objective of platform is to create an unified electronic document system, including the creation of various types of electronic documents, review and approval processes, and government meeting records.

Shermatov Sherzod, Minister of Information and Communication Technology Development of Uzbekistan, has formally requested training support from the Korean government for classification and standardization of administrative processes in the Government Affairs Management System (On-nara), data collection for decision-making, and benchmarking of records management.

In response , the Korean government opened a special training course for Uzbekistan and conducted sessions for ten officials from the Office of the President of Uzbekistan and the Ministry of Digital Technology from November 21 to 25.

In relation to Korea's national system, lectures on government business management and document distribution, government directories, data analysis systems, BRM systems, and digital record management were held at the NIA Global Center.



# Digital Government Trends of Uzbekistan

---

## ■ e-Government Trends in Uzbekistan

Uzbekistan President Mirziyoyev approved and finalized measures to improve the UN e-government assessment rating on September 14th. These measures include the establishment of a single e-government portal to facilitate communication between citizens, businesses, and government agencies. Additionally, the initiative involves the implementation of an electronic document management system to streamline communication with government institutions, and ensuring the cybersecurity and protection of personal information provided by citizens and businesses to government agencies. The key points of these measures include developing a roadmap to position Uzbekistan among the top 30 countries in e-government development index by 2030, forming working groups to improve online service index, communication infrastructure index, and human capital index. Additionally, it involves creating a functional list of government agencies and organizations, compiling a detailed list of digitized processes and services with deadlines and classifications. Additionally, the plan involves the implementation of digital services designed specifically for vulnerable groups in society.

The strategy to increase the number of internet and mobile communication users involves ensuring the competition in the communication service market, guaranteeing equal conditions for operators and providers. Specific proposals will be developed to introduce advanced technologies such as artificial intelligence, big data, Internet of Things, and blockchain into the digital government system, social sphere, and economic sector, with the aim of providing better services. International standards will be adopted to evaluate the overall scope and duration of education. It further entails the education in digital technology for citizens across diverse demographics, including the elderly, women, youth, and people with disabilities. Mechanisms will be developed to acquire electronic data from government information systems and resources, make digital decisions, and ensure digital dialogue between local governments and residents or businesses.

### Specific targets include:

- Increasing the number of interactive public service integration portal services by 700,
- Ensuring that at least 75% of integrated portal services are available through mobile applications,
- Providing Uzbekistan geographic information, and
- Launching a dedicated portal to provide public transport information in Tashkent city.





# DGCC newsletter #07

## DGCC in Laos

### Joint Cooperation Project

---

#### ■ The Korea-Laos Digital Government Project in 2023

- Development of Lao PDR's Digital government Service Roadmap
- Development of Lao PDR's Strategic Plan to Improve UN's EGD Index

#### Overview

The Lao Ministry of Technology and Communications (MTC), in collaboration with UNDP, had conducted the Digital Maturity Assessment to evaluate the readiness of digital government in Laos. Subsequently, the 'Digital Government Strategy and Master Plan' was drafted based on the assessment outcomes. However, as of June, 2023, a digital government service roadmap at the national level in Laos was yet to be established, posing challenges in implementing efficient and systematic digital government service with a mid- to long-term vision.

On the other hand, Laos ranked 159th out of 193 countries in the 2022 UN' E-Government Development Index (EGDI) Survey, which measures the level of e-government development globally. The country's ranking in online service index (OSI), telecommunication infrastructure index (TII), and human capital index (HCI) all remained at very low levels.

Considering the importance and urgency of digital government development, the Laos government strongly hoped to establish its own digital government service roadmap and devise a to UN e-government assessment response strategy through the Korea-Laos Digital Cooperation Center (DGCC). Accordingly, two sub-projects – 'Establishment of Lao PDR's Digital Government Service Roadmap (Roadmap project)' and 'Establishment of Lao PDR's Strategic Plan to Improve UN's E-Government Development Index (EGDI project)' – were selected as 2023 Korea-Laos Digital Government Cooperation Center' joint cooperation projects, which has been

carried out from 10th of August to 15th of December, 2023. The projects were managed by DGCC, and implemented by a consortium of two Korean consulting firms: -KITC for Roadmap project and Nexin Technology for EDGI project.

### **Establishment of Lao PDR's Digital Government Service Roadmap (Roadmap Project)**

'Establishment of Lao PDR's Digital Government Service Roadmap' project aims to identify priority tasks and establish long-term service roadmap for the time span of 10 years from 2024 to 2033, based on analysis of Laos' digital government environment and maturity level. As with other typical ISP consulting projects, this project progresses through the following five phases:

**Environment Analysis phase** to analyze macro-environment, laws and institutions, governance, internal capacities, best practices (Korea and other neighboring countries) related to digital government and ICT;

**AS-IS Analysis (Maturity Level Diagnosis) phase** to investigate and analyze the Lao government's core businesses and information resource status, and diagnose and analyze the maturity level (service provision and usage status, readiness, etc.) of G2G, G4C, G2B services and common infrastructure;

**Vision, Goal and Strategy Setting phase** to establish the framework of Laos' digital government service roadmap, and establish vision, target model and strategy by synthesizing the results of Laos digital government environment analysis and maturity level diagnosis;

**Priority Tasks Identification phase** to identify priority tasks for Laos' digital government service roadmap, and prepare task descriptions for each priority task (20 priority tasks); and

**Action Planning and Roadmap Establishment phase** to establish short-term/mid-term/long-term phased implementation plans to realize Laos' digital government, and establish mid- to long-term service roadmaps including detailed implementation schedules for each implementation phase.

Upon completion, Lao PDR's long-term (10 years) Digital Government Service Roadmap will include a detailed action plan, scheduled to be finalized at the end of December, 2023.

### **'Establishment of Lao PDR's Strategic Plan to Improve UN's E-Government Development Index (EGDI project)'**

The objectives of this EGDI project are to assess Lao PDR's e-Government readiness level based on the assessment items of the UN' E-Government Development Index (EGDI), and to establish comprehensive response strategies such as improvement plans to improve the UN's EGDI and response measures to the UN's e-Government assessment. This project progresses through the following three phases:

**Laos' UN EGDI Evaluation Response Status and Result Trend Analysis** to Investigate and analyze Laos' response to the UN's EGDI assessment, and compare and analyze Laos and Korea/adjacent countries' UN's EGDI assessment result trend;

**Laos' e-Government Readiness Level Assessment** to assess Laos' e-Government

readiness by evaluating the assessment items (180 items) of the Online Service Index (OSI), Telecommunication Infrastructure Index (TII), and Human Capital Index (HCI), which are sub-indexes of the UN e-Government Development Index (EGDI); **and Laos' Strategic Plan Establishment for UN's EGDI Improvement** to establish comprehensive response strategies to improve the UN's EGDI such as UN's EGDI improvement plans and UN's EGDI evaluation response plans.

As part of activities of joint cooperation projects, the inception workshops were held on September 21<sup>st</sup> for the MTC and September 28<sup>th</sup> for line ministries in, 2023. The interim workshops took place on October 27<sup>th</sup> and 30<sup>th</sup> to acquaint participants with DGCC's joint cooperation projects and share their valuable information with the project team in diagnosing Lao PDR's maturity level (service provision and usage status, readiness, etc.) of G2G, G4C, G2B services and common infrastructure. This diagnostic process, is an integral to identifying Lao PDR's priority projects and establishing digital government service roadmap.



Once the DGCC's joint cooperation projects are completed at the end of 2023, they are expected to help achieve the digital government vision pursued by Lao PDR.

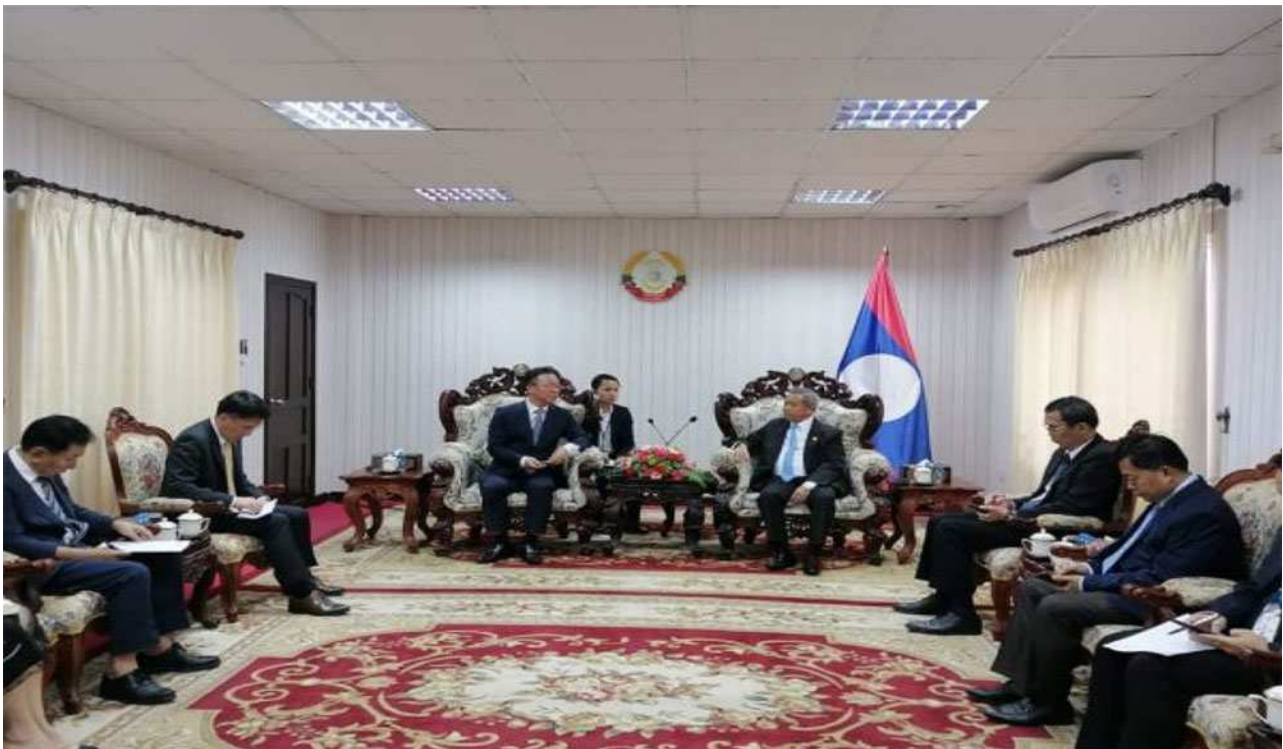


# Activities of DGCC in Laos

---

## ■ Bilateral Meeting between Korea and Laos on Digital Government Cooperation

The Lao Minister of Technology and Communications (MTC), Dr. Boviengkham Vongdala received the Ambassador of the Republic of Korea to Laos, Mr. Yung Soo Jung, the senior vice president of the National Information Society Agency, Mr. Wonjae Park and his delegation in Vientiane on September 26. The meeting was to materialize the memorandum of understanding signed between the MTC and the Ministry of the Interior and Safety of the Republic of Korea on May 26, regarding the Establishment and Operation of Korea-Laos Digital Government Cooperation Center (DGCC).



During the meeting, the Minister, Vongdala emphasized the importance and urgent need of integrating digital technology across all aspects of socio-economic development, highlighting three interconnected facets: digital economy, digital society and digital government. He urged the Korean government and DGCC to play an important role in pursuing it. In reply, the Ambassador, Jung pledged to continue to support Lao national digital transformation and promote the bilateral cooperation between two governments in the fields of digital government and ICT.



## Opening Ceremony of Korea-Laos Digital Government Cooperation Center (DGCC).

Following the bilateral meeting, the official opening ceremony of Korea-Laos Digital Government Cooperation Center (DGCC) was held successfully on September 26th. Notable dignitaries in attendance included the Ambassador of the Republic of Korea to Laos, Mr. Yung Soo Jung, the Lao Minister, Boviengkham Vongdala and three deputy ministers of the MTC, the senior vice president of the National Information Society Agency, Mr. Wonjae Park, and the country director of KOICA, Ms. Myungjin KIM among others. The senior vice president of the National Information Society Agency, Mr. Park conveyed his congratulations by mentioning “This splendid Korea-Laos DGCC, which opens its doors today, aims to foster development and economic growth within the realms of digital government and to enhance cooperation between Korea and Laos.” and “As we embark on this promising journey, we humbly seek the interest and support of all those who have joined us today for the constant cooperation.



## Sharing Korea's knowhow and experience in public records management

As part of these national initiatives, the Lao Ministry of Technology and Communications and other line ministries have been developing and delivering G2G, G2B and G2C services. However, some services are still at early stage of development and some fail to meet users' needs. Especially, e-Document Lifecycle Management in the Lao public sector remains at the initial level despite of the adoption of 'e-Office' system (electronic document management system) in 2018 due to some barriers or challenges.

As the Lao government has set out 'Government wide document management and collaboration solution' as one of its priority initiatives in 'Digital Government

Strategy and Master Plan’ to be finalized in December 2023, the Digital Government Center of the MTC responsible for this initiative wanted to learn Korea’s knowhow and experience in public records management, the DGCC introduced Korea’s On-nara System for Task and Document Management and its entire e-Document Lifecycle Management.

In some countries including the Republic of Korea, the e-Document management occurs in three phases, namely, current document management phase using e-DMS (Document Management System) at the institutional level, semi-current document management phase using e-RMS (Records Management System) at the institutional level, and non-current document management phase using e-AMS (Archives Management System) at the central level, as illustrated in the table 1. below.

**< Table 1 > e-Document Lifecycle**

Category	Phase 1 (creation, short-term management & distribution)	Phase 2 (mid-term preservation, utilization & transfer)	Phase 3 (long-term preservation, disclosure & utilization)
Types of document	Current document	Semi-current document	Non-current document
Organization responsible for document management	Each public institution	Each public Institution	National Archives
Information System to handle document management	BPS (Business Process System) task management schedule management directives management performance management	e-RMS (Records Management System) <sup>1</sup>	e-AMS (Archives Management System)
	e-DMS (Document Management System) <sup>2</sup> document management document distribution		

<sup>1</sup> The e-RMS can be considered as the e-AMS at the institution level.

<sup>2</sup> The e-DMS can be considered as part of the BPS or a separate system.

# Digital Government Trends of Laos

---

## ■ Lao PDR's 'Digital Government Strategy and Master Plan' to be finalized at the end of 2023

As a key enabler for economic and social development, digital transformation is no longer an option to consider but an imperative that is integral to Lao PDR's national development. To pursue digital transformation, the Lao government has been implementing the National Digital Economic Development Vision for 2021-2040, the National Digital Economic Development Strategy for 2021-2030, and the National Digital Economic Development Plan for 2021-2025 among others.

In line with these policies, the Lao government has been carrying out various initiatives for its digital transformation. Based on the outcomes of Digital Maturity Assessment or DMA which the Ministry of Technology and Communications (MPT) conducted in 2022 in collaboration with the United Nations Development Programme (UNDP), the MPT has been drafting 'Digital Government Strategy and Master Plan', scheduled to be finalized at the end of 2023.

## **New National Committee on Digital Transformation launched in June, 2023**

In order to expedite digital transformation to bolster Lao socio-economic development, the National Committee on Digital Transformation has been organized according to a Presidential Decree signed by the Lao President Thongloun Sisoulith on June 2 and the President has appointed 22 senior government officials as members of the committee, designating the Prime Minister Sonexay Siphandone as its chairman. Additionally, the Minister of Public Security, Minister of Foreign Affairs, and the Minister of Technology and Communications have been designated as vice chairmen of the committee. The new committee will set guidelines, strategies, policies, and mechanisms to guide and implement the transformation of the digital economy at central and local government levels.

## **A One-stop Mobile Application For Public E-services launched in August, 2023**

The national Digital Transformation agenda aims to digitalize government services for the Lao people through three pillars: digital economy, digital society and digital government. As part of this process, the MPT, supported by UNDP, unveiled the Gov-X application on August 28. This new mobile app features G-Form (A compilation of the main forms and templates), Social Welfare Status Check (A service that allows citizens to check their eligibility for social welfare benefits), Business Registration License Check (A service that allows businesses to check the status of their business registration license), G-Office (A tracking system that allows citizens to monitor the status of their government documents), Khangpanya (A link to the Ministry of Education and Sports knowledge center) and others. Although the Gov-X app does



not enable all relevant transactions to be fully completed online as of November, it marks a significant stride towards improving the delivery and accessibility of government services to citizens, businesses, and government officials in Lao PDR.





# DGCC newsletter #07

## DGCC in Indonesia

### Joint Cooperation Project

---

#### ■ The Korea-Indonesia Digital Government Project in 2023

- Establishment of Digital ID Strategy for Indonesia
- Establishment of EA based Digital Government Strategy for Poverty Reduction in Indonesia

The Korea-Indonesia Digital Government Cooperation Center (DGCC) is now entering its third year of operation, and we are excited to announce the launch of the 2023 Digital Government Joint Cooperation Project. Running from June to November 2023, the project aims to provide support in addressing the current digital challenges faced by the Indonesian government.

From 2021 to 2022, DGCC had supported the strategic planning and design of the Indonesian government's public service portal as a part of the joint cooperation tasks. The Indonesian government, led by the Ministry of Administrative and Bureaucratic Reform, has implemented it through a public service portal called "Digital Public Service Mall", which has been available in 21 regions of Indonesia from June 2023. As the Indonesian government's accelerates the establishment of its public service portal, the need for stable support in areas such as user authentication, electronic signature-related requirements, and personal information protection becomes paramount. Discussions are actively underway regarding the introduction of national digital IDs. To support the Indonesian government's digital resolution efforts, the Korea-Indonesia DGCC is actively engaged in developing a "National Digital ID Introduction Strategy."

Moreover, in alignment with the bureaucracy reform emphasized by Indonesian President Joko Widodo, the thematic reform initiative has been launched to yield tangible and direct outcomes on various problems in Indonesia in 4 key areas:

poverty eradication, investment expansion, implementation of digital government, and acceleration of the presidential priority agenda. As a part of this reform, the establishment of an informatization strategy for ministries involved in poverty eradication will be included as a joint cooperation task in 2023. This collaboration aims to systematically and efficiently support poverty eradication using digital solutions.

### **DGCC Joint Cooperation Project's Entry Meeting**

The entry meeting for the Joint Cooperation Project, held on July 12, saw the participation of digital government officials from various ministries, including; the Indonesian Ministry of Administrative and Bureaucratic Reforms, Ministry of Communication and Informatics, Ministry of Home Affairs, and the National Cyber and Crypto Agency.

During the meeting, Mrs. Nanik Murwati, the Deputy Minister of Administrative and Bureaucratic Reform, expressed gratitude to the Minister of Interior and Safety of Republic of Korea and the National Information Society Agency of Korea for their ongoing strategic cooperation in the field of digital government between Korea and Indonesia. She emphasized the importance of joint cooperation tasks in 2023, such as the Digital ID development strategy, informatization strategy for poverty eradication, and capacity building program, in accelerating digital government in Indonesia.

Mr. Kim Dong-hyun, the Counsellor at the Embassy of the Republic of Korea in Indonesia, expressed his hope for the successful implementation of the joint cooperation project in 2023. He highlighted the meaningful nature of this year as the 50th Anniversary of Korea-Indonesia Friendship, stating that the project would enhance the quality of public services provided by the Indonesian government and foster trust and support from its citizens.

Mr. Kim Hyojoong, Co-Director of Korea-Indonesia DGCC, provided updates on the progress of the DGCC project and outlined the joint cooperation tasks for 2023. Additionally, Mr. Cahyono Tri Birowo, Head of E-Government at the Ministry of Administrative and Bureaucratic Reform, shared insights into the direction of Digital ID development with officials from relevant ministries and institutions present at the entry meeting.

### **Capacity Building for Indonesian Government Officials**

To support Indonesian officials in enhancing their digital government capabilities, a group of 13 officials from seven ministries, including the Ministry of Administrative and Bureaucratic Reform, the Ministry of National Development and Planning, the Ministry of Home Affairs, the Ministry of Communications and Informatics, the Coordinating Ministry of Economics, the Coordinating Ministry of Human Resources Development and Culture, and the National Cyber and Crypto Agency, were invited to Korea for a seven-day program from October 14 to 21, 2023.



The training program was designed to emphasize lectures highlighting Korea's exemplary digital government practices and field visits. The curriculum was developed following survey conducted among public officials, ensuring the training catered to their specific needs.



Opening Ceremony



Visiting National Information Resources  
Service

# Activities of DGCC in Indonesia

---

## ■ Korea-Indonesia Digital Government Forum 2023

On the occasion of the 50th anniversary of diplomatic relations between South Korea and Indonesia, the 2023 Korea-Indonesia Digital Government Cooperation Forum took place at Sheraton Hotel in Gandaria, Jakarta on September 22. The event was hosted by the Ministry of the Interior and Safety of Korea, the Korean National Information Society Agency (NIA), and the Ministry of Administrative & Bureaucratic Reform of Indonesia.

Representatives from the Korean side included officials from the Ministry of the Interior and Safety, the National Information Society Agency, the Embassy of the Republic of Korea in Indonesia, the Korea Minting and Security Printing Corporation, the Social Security Intelligence Service, the Korea Fiscal Information Service, LG CNS, Raon Secure, and the Korea IT Consulting (KITC). Meanwhile, the Indonesian delegation comprised a total of 200 officials, including the Minister, Secretary, and Deputy of the Ministry of Administrative and Bureaucratic Reform, along with officials from ministries/institutions belonging to the Indonesian e-government coordination team.

Minister of Administrative and Bureaucratic Reform of Indonesia, Abdullah Azwar Anas, delivered a keynote speech highlighting the significance of hosting the Digital Government Cooperation Forum in 2023, coinciding with the 50th anniversary of Korea-Indonesia diplomatic relations. He noted "Korea, well known for its advanced technology, innovation, and public services, is a crucial partner of Indonesia and will continue to strengthen cooperation to achieve more results."

As Indonesia's digital transformation journey to achieve digital government is in full swing, the national digital government architecture is prioritizing the implementation of digital public infrastructure, and has selected key areas of focus including the creation of a digital financial transaction ecosystem, digital ID introduction, and data exchange. To achieve this goal, Minister Anas emphasized that the enactment of the "Presidential Decree on Accelerating Digital Transformation" will be completed within this year to improve government services and accelerate national development.

In his speech at the forum, Ambassador Lee, Sang Deok highlighted that at the 50th anniversary of diplomatic relations between the two countries, the DGCC, which has been operated jointly by the two countries since 2016, has achieved remarkable milestones through close cooperation in the field of digital government. He stressed the importance of administrative reform through digital government implementation is a prerequisite for the development of all fields in the country through digitalization of work and improvement of efficiency. Ambassador Lee underlined the pivotal role of digital government in realizing President Jokowi's

vision of a "2045 Golden Indonesia", with Korea being a reliable partner in this process.

NIA president, Hwang, Jong Sung, provided a keynote presentation introducing the "Digital Platform Government Realization Plan" pursued by the South Korean government. While the Korean government has been actively responding to the Internet/mobile environment by establishing e-government, recent efforts have focused on adapting to new technological environments such as artificial intelligence and big data. The aim is to run the government as one team by eliminating barriers and silos between various information systems, thus they announced that they are pursuing a transition to a platform government. While some countries' national digitization strategies emphasize that there are problems such as data sovereignty infringement due to excessive dependence on private global companies, or lack of openness due to being state-centered or national-centered, Korea's Digital Platform Government emphasized that it is promoting sharing and cooperation with Indonesia and other nations as a differentiated model that can escape such limitations.

In the forum's keynote presentation, the Ministry of Administrative and Bureaucratic Reform and the Ministry of Communication and Informatics announced the policy direction and ecosystem construction plan for the establishment of the Indonesian Digital ID, the Korea Minting and Security Printing Corporation (KOMSCO) presented Korea's Digital ID status, Raon Secure outlined the current status of the Indonesian Digital ID introduction strategy and plans underway as a joint cooperation project for DGCC this year. Subsequently, the Indonesian Coordinating Ministry of Human Resource Development Culture shared the status of the Poverty Eradication Project, the Korea Social Security Intelligence Service introduced Korea's social security information system, and Korea IT Consulting presented the current status and plans for the establishment for this year's DGCC joint cooperation project, focusing on the informatization strategy for poverty eradication.



Photo session



Forum attendees



# Digital Government Trends of Indonesia

---

## ■ Prime Minister Commendation of the Republic of Korea for Assistant Deputy of Ministry of Administrative and Bureaucratic Reform, Mr. Cahyono

The South Korean government hosted the 2023 Development Cooperation Day Ceremony at The Plaza Hotel, Seoul, on November 21, presided over by Prime Minister Han Duck-soo. This annual event, celebrated around the day Korea joined the OECD Development Assistance Committee (DAC) to showcase the outcomes of official development assistance (ODA) to developing countries and reaffirm our commitment to contributing both domestically and internationally. Over 150 domestic and foreign figures in the field of development cooperation, including government ministries, local governments, public institutions, diplomatic corps in Africa, academia, and civic groups, attended the ceremony.

Notably, Mr. Cahyono Tri Birowo, the Assistant Deputy of the e-Government Department of the Ministry of Administrative and Bureaucratic Reform of Indonesia, who also serves as the co-director of the Korea-Indonesia Digital Government Cooperation Center, received the Prime Minister's Commendation. This recognition acknowledges his significant contribution to strengthening the Indonesian digital government and fostering bilateral cooperation by actively benchmarking Korea's best practices, including his role in the opening of the Korea-Indonesia DGCC.

From 2016 to 2023, the Korea-Indonesia DGCC has achieved notable outcomes across various domains, including the enactment of laws for digital government realization, strategies and design of public service portals, the establishment of national digital government architecture, and enhancement of the digital government capabilities of Indonesian officials. This progress includes the issuance of the Presidential Decree of e-Government (2018) and the Presidential Decree on National Digital Government Architecture (2022). Recognizing these achievements, the Indonesian government has requested an extension of DGCC operations in order to further bolster bilateral cooperation in the digital government, particularly in light of the relocation of the Indonesian capital in 2024. The Korean government, in response, is committed to continuing and strengthening cooperation with the Indonesian government in the field of digital government.



Mr. Cahyono receiving the Commendation



Ministry of  
the Interior and Safety

**NIA** NATIONAL INFORMATION  
SOCIETY AGENCY



# DGCC newsletter #07

## DGCC in Cambodia

### Joint Cooperation Project

---

#### ■ The Korea-Cambodia Digital Government Project in 2023

##### ● Expansion of Open Source Cloud Technology

The Korea-Cambodia Digital Government Cooperation Center was established inside the Ministry of Posts and Telecommunications as the foundation for digital government cooperation between Korea and Cambodia, following the signing of the Memorandum of Understanding (MOU) in July 2021 for its establishment and operation.

This center was jointly developed as a outcome of comprehensive digital government cooperation subsequent to the signing of the Memorandum of Understanding (MOU) for digital government cooperation between Cambodia and Korea during the 'Korea-ASEAN Special Summit' in Busan in November 2019. It includes the commitment of the Korean government to consistently support the digital government strategy from 2022 to 2035.

The four main strategies outlined in Cambodia's digital government policy include:

- Building digital infrastructure
- Developing digital governance and public services
- Enhancing and innovating digital capabilities
- Fostering public-private collaboration

To implement these strategies, 83 tasks have been carried out.

As part of the infrastructure for digital government, the Ministry of Posts and Telecommunications is spearheading the construction of a cloud-based data center by 2035. Cambodia has operated a data center of server-room scale and is currently



in the midst of constructing a physical data center facility. Specifically, the Cambodian government initiated a submarine cable building project in 2019, securing a loan from China. The financing includes Huawei providing free server support and cloud solutions to the Cambodian government. In order to increase independence and reduce reliance on any kind of proprietary cloud software, the Cambodian government has encouraged the use of open source-based cloud-related technologies through collaboration with the cooperation center. In order to do this, as part of a cooperative effort beginning in 2021, the Korea-Cambodia Digital Government Cooperation Center launched pilot projects and technical training on Korea's open source-based cloud platform, K-PaaS (previously PaaS-Ta).

In 2021, the Ministry of Posts and Telecommunications provided online training for civil servant developers with prior competence in basic SW development to introduce and implement the K-PaaS (formerly PaaS-Ta) concept. However, due to the challenges of video conferencing, participants had difficulties in communicating and fully understanding the cloud computing concept. It was apparent that the Cambodian public officials faced limitations in comprehending these concepts and effectively utilizing the technology.

Therefore, in order to assist Cambodian government officials in understanding the architecture, configuring the development environment, allocating resources, converting applications to the cloud, implementing the K-PaaS (formerly PaaS-Ta) portal, and other related tasks, the project related to K-PaaS (formerly PaaS-Ta) was promoted in the second year of 2022. The emphasis was placed on practical implementation.

Additionally, a total of six internal experts—two experts with experience in application SW development, one infrastructure expert with experience in data center management, one server installation and management expert, and one infrastructure expert with experience managing data centers—were chosen in 2022 through new hires within the Ministry of Posts and Telecommunications to offer video education. The three weeks of intensive training included invitation training (five days), field training (five days), and instruction training (five days). This program enhanced participant's understanding of the K-PaaS (formerly PaaS-Ta) concept and application cloud conversion. However, challenges arose when attempting independent deployment and operation of K-PaaS.

This was caused by factors such as insufficient practice and training duration. In order to address this, in the third year of the project (2023), a three-month training program was first arranged to provide ample time and practice. Based on this time frame, four exceptional professionals in infrastructure and SW development from the Ministry of Posts and Telecommunications were chosen, and they underwent extensive technical training with a domestic cloud computing business (Infrancis). In 2023, training covered comprehensive installation and operation instructions for small-scale cloud-based data centers in addition to teaching about open source-based cloud infrastructure (Openstack), platforms (K-PaaS), and cloud-based SW development. The outcome was that every learner from Cambodia was certified as a K-PaaS expert by the Open Cloud Platform Center, allowing them to advance to the intermediate expert level through both theory and practice.

Following the training, the Ministry of Posts and Telecommunications' open source-based cloud experts built an open source-based cloud environment in Cambodia using both new and old servers. They also handled the transition of current applications, such as public service portals and business management systems, to the cloud in that environment. and completed the pilot development of a micro service architecture-based cloud application successfully.

The trained professionals are anticipated to play key roles in the future establishment of a cloud-based data center, a direct outcome of this cooperation project of the Digital Government Cooperation Center. Additionally, by establishing a K-PaaS open community in Cambodia, the Cambodian government in the future Furthermore, it is anticipated to serve as a pillar for the expansion of open source cloud technology throughout Cambodia, including the commercial sector.

# Digital Government Trends of Cambodia

---

## ■ Cambodia Pentagonal Strategy (2023-2028)

On August 24, at the first plenary session of the 7th legislature Council of Ministers, the new Prime Minister Hun Manet unveiled the Pentagonal Strategy (Phase 1), first of the five-phase master plan for leading Cambodia towards becoming a high-income country by 2050. The strategy was viewed as the successor to the Rectangular Strategy (Phase 1 to Phase 4) of the previous governments.

### **The five strategic goals are as follows:**

1. Ensure economic growth at an average annual rate of around 7%, resilient to crises, accelerate economic base diversification, improve competition, keep inflation low, ensure exchange rate stability, strive to build reserves, strengthen Public financial management, management of state assets and sustainable debt management.
2. Create more jobs in both quantity and quality, strengthen the quality of education and skills training, provide comprehensive information about the labor market, promote domestic investment and foreign direct investment.
3. Achieve the goal of reducing poverty at a rate of less than 10%, building a centralized and consistent social protection system, providing quality, efficient and environmentally friendly public services.
4. Continue to strengthen the governance capacity and improve the quality of institutions at both the national and sub-national levels, the efficiency of public services, and continue to strengthen the governance of the private sector, and promote a favorable environment for business, investment and trade.
5. Ensure sustainable socio-economic development and build resilience to climate change, promote gender equality, manage natural resources sustainably, and promote public investment.

The Pentagonal Strategy (Phase 1)<sup>6</sup> is particularly similar to the Rectangular Strategy (Phase 4)<sup>7</sup> in essence, priorities, and action plans.

### **Core and Overarching Environment**

The cores or the main focus of both strategies are the same: governance reform. Each core consists of specific action plans or “sides” for achieving the core objective. Table below illustrates these sides.



**Table 1. Comparison of Cores and Sides**

Strategy	Rectangular Strategy (2018-2023)	Pentagonal Strategy (2023-2028)
Core	Acceleration of Governance Reform	Governance Reform and Strengthening
Sides	<ol style="list-style-type: none"><li>1. Institutional Reform and Capacity Building</li><li>2. Enhancement of Accountability and Integrity in the Public Administration</li><li>3. Strengthening of Work Efficiency;</li><li>4. Strengthening of Private Sector Governance.</li></ol>	<ol style="list-style-type: none"><li>1. Institutional Reforms and Strengthening</li><li>2. Improvements of Human Resources and Work Efficiency</li><li>3. Enhancement and Strengthening of Accountability and Integrity in Public Administration</li><li>4. Enhancement and Strengthening of the Effectiveness of Laws and Justice System</li><li>5. Strengthening of Governance of Private Sector and Businesses</li></ol>

Source: Sok Sothearak, Pentagonal Strategy Phase 5, IISPP 2023

At first glance, both strategies have almost identical core's sides, except that Pentagonal added "Enhancement and Strengthening of the Effectiveness of Laws and Justice System". The contents of the other four sides are almost identical. One main difference is in terms of public participation in strengthening the accountability and integrity of public administration. Rectangular mentions people's participation in policy formulation and implementation and also mechanism for feedback receiving and complaints handling from the public service users, while Pentagonal does not.

In terms of overarching environment, both policies share almost identical elements (Table 2), except for the foreign policy. The guideline for foreign policy in Pentagonal (overarching environment 2) is more specific and detailed than that of Rectangular. Pentagonal emphasizes specifically on the principles of permanent neutrality, non-alignment, practice of soft yet firm flexible and balanced diplomacy, prohibition of the use of Cambodian territory as foreign military base, and opposing the threat and the use of force. This might reflect the current global situations influencing the policy's formulation.

**Table 2. Comparison of Overarching Environments**

Strategy	Rectangular Strategy (2018-2023)	Pentagonal Strategy (2023-2028)
overarching environment	1. Peace, Political Stability, Security, and Public Order	1. Continued Strengthening of Peace, Political Stability, Security and Public Order

Strategy	Rectangular Strategy (2018-2023)	Pentagonal Strategy (2023-2028)
	2. Favorable Environment for Business, Investment and Development  3. Strengthening Ownership and Partnership in Development and International Cooperation  4. Strengthening Cambodia's Capacity to Further Promote Its Integration into Regional and Global Economy	2. Adherence to an Independent, Rule-Based, and Smart Foreign Policy  3. Ensuring Microeconomic and Financial Stability  4. Continued Building of Inclusive and Effective Partnership for Development Cooperation  5. Continued Promotion of Deeper Integration into the Regional and Global Economy

Source: Sok Sothearak, Pentagonal Strategy Phase 5, IISPP 2023

## Strategic Rectangles and Pentagons

The next element of Rectangular and Pentagonal is the outer layer of strategic Rectangles and Pentagons. At first glance, the four Rectangles of Rectangular and the five Pentagons of Pentagonal strategies look very similar. However, there are some noticeable differences.

**Table 3. Comparison of Outer Layers**

Strategy	Rectangular Strategy (2018-2023)	Pentagonal Strategy (2023-2028)
outer layer	<p>Rectangle 1: Human Resource Development</p> <p>Rectangle 2: Economic Diversification</p> <p>Rectangle 3: Promotion of Private Sector Development and Employment</p> <p>Rectangle 4: Inclusive and Sustainable Development</p>	<p>Pentagon 1: Human Capital Development</p> <p>Pentagon 2: Economic Diversification and Competitiveness Enhancement</p> <p>Pentagon 3: Development of Private Sector and Employment</p> <p>Pentagon 4: Resilient, Sustainable, and Inclusive Development</p> <p>Pentagon 5: Development of Digital Economy and Society</p>

Source: Sok Sothearak, Pentagonal Strategy Phase 5, IISPP 2023

The detailed focus for each strategy of the pentagonal strategy (2023-2028) to promote economic growth and social development is as follows.

### Pentagon 1: Human Capital Development

- **Angle 1:** Strengthening the quality of education, sports, science and technology

- **Angle 2:** Technical Skills Training
- **Angle 3:** Promoting people's health and well-being
- **Angle 4:** Strengthening the social protection system and food system
- **Angle 5:** Strengthening Citizenship in a Highly Civilized Society with Morality and Equity

#### **Pentagon 2: Economic Diversification and Increasing Competitiveness**

- **Angle 1:** Development of key sectors and new sources of economic growth
- **Angle 2:** Improving connectivity and optimization of the transport and logistics sectors, energy, water and digital sectors
- **Angle 3:** Improving the business and investment environment
- **Angle 4:** Strengthening the efficiency and attractiveness of special economic zones, including industrial parks, agro-industrial parks and free-trade zones
- **Angle 5:** Innovation of financing mechanisms and financial products to support investment

#### **Pentagon 3: Private Sector Development and Employment**

- **Angle 1:** Labor Market Development
- **Angle 2:** Promoting micro, small and medium enterprises, new businesses, entrepreneurship, informal economic development
- **Angle 3:** Strengthening Public-Private Partnership
- **Angle 4:** Strengthening competition
- **Angle 5:** Strengthening the banking system and the non-banking financial sector

#### **Pentagon 4: Sustainable and Sustainable Development**

- **Angle 1:** Nationalization of demographic yields, strengthening demographic resilience and the promotion of gender equality
- **Angle 2:** Sustainable natural resource management, cultural heritage and tourism
- **Angle 3:** Agricultural Promotion and Rural Development
- **Angle 4:** Strengthening management and modernization of urbanization
- **Angle 5:** Ensuring environmental sustainability and climate change resilience and promoting a green economy

#### **Pentagon 5: Digital Economic Development and Society**

- **Angle 1:** Building a Digital Government and a Digital Citizen
- **Angle 2:** Development of Digital Economy, Digital Business, Electronic Commerce and Digital Innovation
- **Angle 3:** Building and developing digital infrastructure
- **Angle 4:** Building trust in digital systems
- **Angle 5:** Development of financial technology





# DGCC newsletter #07

## DGCC in Peru

## Joint Cooperation Project

---

### ■ The Korea-Peru Digital Government Project in 2023

- Feasibility study of the introduction of digital identity
- Establishment of guidelines for cloud transition to Peruvian national digital infrastructure platform

#### 1. A mid-term progress report meeting

A mid-term report meeting for the DGCC Joint cooperation project was held on September 8, 2023, featuring the participation of key officials and experts, including Shin Sang-chul (Director of DGCC Center), Alain Dongo (Secretary of the Secretariat of Digital Government and Transformation), Kim Sung-man (First Secretary of the Korean Embassy in Peru), and Kim Young-tak, (Project Manager of the Nexin Consortium).

The project's activities for the year include:

- Reviewing the feasibility of introducing a national digital ID in Peru.
- Establishing a PNGD cloud migration guideline for public services.
- Organizing a digital government capacity building and knowledge exchange forum.

The project began on June 16, 2023, with a kick-off meeting, and completed in the end of November.

Task	Contents
<b>National Digital ID</b>	<p>As the government-led digital transformation and public services are accelerating, the project aims to showcase the feasibility of introducing a national Digital ID in Peru. The project is geared toward meeting the requirements for user authentication and electronic signature on mobile devices.</p> <p>The project includes:</p> <ul style="list-style-type: none"> <li>- Analyzing the current status and environment of digital IDs</li> <li>- Designing and demonstrating a target system for the Peruvian national digital ID</li> <li>- Proposing a phased service introduction plan and diffusion strategy</li> <li>- Analyzing the qualitative and quantitative expected effects of system introduction</li> </ul>
<b>PNGD transformation strategy</b>	<p>The project aims to improve the utilization of the PNGD, which was established and operated in 2022 on the basis of IaaS. Its primary objective is to provide guidelines and a mid- to long-term platform upgrade strategy for the systematic transfer of individual services operated by each central department to the system.</p> <p>The project includes:</p> <ul style="list-style-type: none"> <li>- Analyzing the current status of information resources by Peruvian departments and drawing implications</li> <li>- Proposing a plan for the transfer of public services by department and in stages</li> <li>- Establishing and operating a Cloud Support Center</li> <li>- Analyzing the qualitative and quantitative effects of cloud migration</li> </ul>
<b>Capacity building</b>	<p>To support the professional development and capacity building of Peruvian government officials engaged in digital government initiatives, the project aims to implement customized training and promote knowledge sharing on digital government between the Peruvian public and private sectors.</p> <p>The project includes:</p> <ul style="list-style-type: none"> <li>- Operating a Korean invitational program for 5 Peruvian officials</li> <li>- Organizing a forum on digital government major policies, integrated data center technology trends, and project implementation results</li> </ul>



Mid-term report meeting (8. Sep)



Kick-off Meeting (16. Jun)

## 2. Peruvian civil servants' invitation program to Korea

In order to enhance the expertise and competitiveness of Peruvian civil servants related to digital government, a capacity building program invited to Korea was held for 5 days in Seoul and other regions from September 18 (Mon) to 22 (Fri).

Five people, including the Secretary General of the Peruvian Prime Minister's Office and Secretary of the Secretariat of Digital Government and Transformation, participated in this program and visited Korea's government and private data centers, the Digital Government Promotion Center, the Smart City Integrated Control Centers, the Seoul Metropolitan Government Transportation System - TOPIS, and the Presidential Archives. Additionally, lectures covering Korea's digital platform government policy and digital ID technology and policy were consistently delivered, yielding high levels of satisfaction.

This program is set to recommence annually around September, featuring newer and more diverse sites.



Initiation ceremony (18. Sep)



Discharge ceremony (22. Sep)

## 3. Group training to transit Peruvian public services to the cloud

The Digital Government Collaboration Center (DGCC) invited Korean cloud experts and conducted theoretical and practical training on cloud conversion for 21 working-level civil servants from October 20th to 27th. The objective was to ensure a secure transition of public services from Peruvian ministries to the cloud-based Peruvian Digital Government Infrastructure Platform (PNGD).

The lecture attendees comprised cloud workers from each ministry, particularly those involved in or planning to transition public services to PNGD. Additionally, participants included staff responsible for PNGD operation management and technical support staff from the Secretariat of Digital Government and Digital Transformation under PCM. Their satisfaction level following the lecture was notably high.

The main training content focused on Korean-style cloud-based theoretical and practical training, with basic cloud theory training such as IaaS/PaaS/SaaS (1st to 2nd day), and application and container deployment courses practiced by instructor and trainees (3 days). In addition, in order to increase the participation of working-level staff and improve their capabilities, a practical session on key cloud technologies such as Docker, Kubernetes, and Terraform was also conducted.



Given the training's emphasis on practical learning, the participants from each ministry expressed high satisfaction, and a desire for further in-depth courses. As a practical measure, the two countries agreed to discuss ways to install a Korean-style cloud (K-PaaS) and e-Govframework (Open source software based framework) in Peru's PNGD and establish a cloud training program (so-called 'playpark' service).



Working-level officials in the cloud field (27. Oct)



Group training (20. Oct)

# Activities of DGCC in Peru

---

## ■ Activities of the DGCC in Peru

### **1. Signing of RD document and proceeding with bidding to carry out the document management system project**

The Peruvian Prime Minister's Office (PCM), with the Peruvian International Cooperation Agency (APCI), agreed and signed a Record of Discussion (RD) document with the Korea International Cooperation Agency (KOICA) to establish a cloud-based comprehensive document management system.

This project is scheduled to operate from 2023 to 2027 and aims to improve the efficiency and transparency of administrative services in 19 central ministries, including the Prime Minister's Office.

For this purpose, the project will initiate the re-engineering of national document management processes and digitization of the current non-standardized or paper-based document exchange.

A total budget of \$8.5 million will be invested, which will be executed in the form of grant aid and promoted through PCM's Secretariat of Digital Government and Transformation.

As of November 2023, open bidding was underway, with the selection of performing companies slated for December. The first phase will focus on consulting until the second half of 2024. A comprehensive cloud-based document management system will be designed and have secure, standardized access, enabling interoperability through the digital government platform. In addition to technical details, the agreement also includes capacity-building training for civil servants in the relevant ministries and other relevant public institutions.

### **2. Public administration cooperation forum**

A 10-member Central and South American public administration cooperation delegation led by Jeong Seon-yong (assistant minister of the Ministry of Interior and Security), visited Peru from July 23 to 25, 2023. They held a Korea-Peru Public Administration Cooperation Forum and bilateral high-level meetings and working-level meetings to strengthen Latin American cooperation in public administration fields such as government innovation, digital government, and regional development.

Through this event, the two countries decided to strengthen cooperation in the digital field and sharing the Saemaeul Movement spirit.

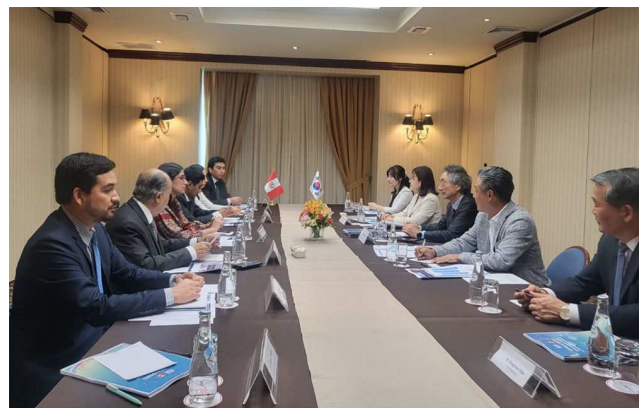
The cooperation forum was held on Monday, July 24th at the Swissotel Hotel in Lima with officials from ministries related to digital transformation, including the

Peruvian Prime Minister's Office (Secretary General Oscar Gomez, etc.), the Ministry of Social Integration and Development (Vice Minister Monte llanos, etc.), the Science and Technology Innovation Committee, the Ministry of the Interior, DGCC, and the National Police Agency. In addition, officials from Korea Public Administration Cooperation delegation, Korean Embassy in Peru, KOICA, KOTRA, and local companies in Peru attended. About 340 people (120 on-site attendees, 215 online participants) attended. The main contents covered introduction of Korea's government innovation cases, Korea's digital government centered on digital platforms, Peru's digital transformation progress, challenges and prospects, Peru's digital signature and digital ID policy, and Peru's regional and social development policies.

The Public Administration Cooperation delegation, visiting Peru on the occasion of the 60th anniversary of the establishment of diplomatic relations between Korea and Peru, shared policy promotion experiences through the forum under the core topics of achieving digital transformation, overcoming poverty, and regional development, which are the Peruvian government's policy issues. This event closely discussed practical cooperation measures through high-level interviews and working-level meetings, so that Korea's policy experience and direction of cooperation were fully conveyed to Peruvian government officials. In addition, the cooperative relationship between the two countries was evaluated to be progressing in a closer and future-oriented direction.



Event promotion poster



Working-level meetings (23. Jul)



Public Administration Cooperation Forum



Bilateral high-level meetings(24. Jul)

### 3. Korea-Peru Digital Government Cooperation Forum

The Korea-Peru Digital Cooperation Forum was held on Tuesday, November 7, organized by DGCC and co-hosted by the Korean Embassy and the Peruvian Prime



Minister's Office (PCM). At this forum, the results of cooperation activities and future cooperation plans were discussed, focusing on the core topic of digital government and digital transformation, on which the two countries have been closely cooperating.

About 600 people, including government and public institutions, private companies, universities, and general citizens, participated in the forum online and offline.

This forum served as an opportunity to explore and strengthen practical cooperation in the digital field between the two countries through the following various presentations and discussions.

- Outcomes of joint projects of the Digital Government Collaboration Center (DGCC), Direction for establishing the Peruvian National Records Management System,
- Measures to strengthen the functions of the Peruvian National Center for Digital Security (CNSD),
- Measures to strengthen citizen safety using digital technology,
- Government of Peru Plans to expand digital services for the public by the integrated portal (Gob.pe)
- Utilization of the Peruvian National Data Center (PNGD), etc.

The forum highlighted crucial digital topics such as cybersecurity, public data utilization, digital ID, digital services, and smart cities. Notably, the event drew the participation of many university students and the general public in addition to the government and private companies, garnering a significant interest in digital technology cooperation between the two countries.



Digital Government Cooperation Forum (7. Nov)



Digital Government Cooperation Forum

#### **4. Korea-Peru Cyber Security Forum and Policy Meeting**

The Korea-Peru Digital Safety and Trust Cooperation Forum took place on Thursday, August 10, 2023 at Hotel Delfines in Lima City. This event was hosted by the Korean Embassy, KISA, and the Secretariat of Digital Government and Transformation of the Peruvian Prime Minister's Office, participated by about 100 people including Peruvian central and local government officials, public institutions, universities, and private companies.

Under the theme of sharing Korea-Peru digital security strategies and policies, the following information was shared with the Peruvian government, academia, and industry.

- Korea-Peru digital security strategy and policy,



- Advanced technology trends and major response cases in the cyber security field,
- Measures to strengthen the Peruvian National Digital Security Center, etc.

Following this, cyber security policy meetings were conducted, involving military and police officers in one session and working-level cyber security meetings attended by experts from academia and research institutes in another.



Cyber Security Forum (10. Aug)



Cyber security Policy Meeting (10. Aug)

## 5. Establishment of a master plan to build a national cyber security center

The master plan project to build the Peruvian National Center for Digital Security (CNSD) was underway for five months from August 16 to December 15.

This consulting project was funded by Korea Internet & Security Agency (KISA) and was carried out with the participation of Korean small and medium-sized businesses.

At the Korea-Peru Cybersecurity Forum held on August 7, Korean experts introduced their kickoff meeting and project plan in one session. In addition, on November 10<sup>th</sup>, they presented the outcomes to approximately 100 attendees, including Peruvian central and local government officials, public institutions, universities, and private companies.

The main contents covered the current status of Peruvian cybersecurity, the level of advanced countries and standardization trends, activities in international organizations, implications of the current status and environmental analysis, target system design, and establishment of an implementation plan. In addition, it contained the internal design, major equipment, organizational structure, and required budget for building the center.

The outcomes of this project will serve as a major roadmap for the Peruvian government, laying the groundwork for a potential full-scale endeavor to build a national cyber security center in the future.

# Digital Government Trends of Peru

---

## ■ Strategy/Trend of Digital Government

### 1. Amendment of Peru's digital transformation law

The Peruvian government revised the law on July 28 to set the goal of digital transformation. This aims to leverage digital technology in building a trustworthy, inclusive, and resilient society, ultimately improving people's quality of life.

The Peruvian notion of digital transformation has been defined as a process of continuous, disruptive, strategic and culturally-driven changes to create economic, social and personal value through the intensive use of digital technologies for organizing and analyzing data.

Accordingly, there's a recognized urgency in connecting the realms of technology (the 4<sup>th</sup> industrial revolution) with the sphere of national economics (digital economy) and in establishing a process for digital innovation to bolster competitiveness.

Peru's digital transformation strategy was established with four key targets (connectivity, capacity building, digital government, and digital economy) and five major elements.

These can be listed as follows:

1. Robust and affordable broadband Internet service;
2. Supporting an Internet environment that meets user needs,
3. access to and motivation for digital literacy education;
4. (Public service) quality improvement support,
5. Participation, information connection, and trust-based online applications and content provision, etc.

Six priority goals were established as a digital transformation action plan. In addition, a total of 82 services were selected, including increasing the exercise of digital citizenship, strengthening the exercise of citizens' rights, and creating conditions for change that can contribute to the country's economic and productive development.



National policy of Digital Transformation



Revised Law of Digital Transformation (28. Jul)



# DGCC newsletter #07

## DGCC in Paraguay

### Joint Cooperation Project

---

#### ■ The Korea-Paraguay Digital Government Project in 2023

- The Consulting for establishment of the UN e-Government evaluation improvement strategy
- The Consulting for establishment of the Paraguay National AI expansion strategy

The Paraguayan government is promoting digitalization and building e-government services in line with its digital strategy "Plan National ICT 2030."

In line with Paraguay's national digital innovation endeavors, strategic consulting was conducted to establish an artificial intelligence utilization strategy and improve UN e-government evaluation.

This aims to derive the government's response plan to the application of artificial intelligence technology, which is the center of the 4th industrial revolution, and to revitalize the digital economy through collaborative efforts between the public and private sectors.

#### **Task 1: Strategic consulting to improve UN e-Government evaluation.**

While the Paraguayan government is putting a lot of effort into developing e-government services, the DGCC identified the situation in which Paraguay's UN e-government evaluation was not improving, identified the causes and problems, and established a strategy for improvement.

As a way to expand two-way services to the public, the Center proposed to build an administrative DB integration platform using a data lake.

In addition, in order to promote online participation, a common e-government



framework was developed to create a single government portal and single ID, and mobile services were also made available so that citizens could use them easily.

Anticipated improvements in outcomes are expected by 2026, aligning with advancements outlined in the e-government development strategy promoted by the new government.

## **Task 2: Consulting on strategies to expand the use of artificial intelligence technology in Paraguay.**

Regarding artificial intelligence technology, which is the central technology for the development of the 4th industrial revolution, the Paraguayan government is also exploring on ways to research and spread the technology and revitalize the digital economy, and is also researching the improvement of the legal framework governing artificial intelligence usage.

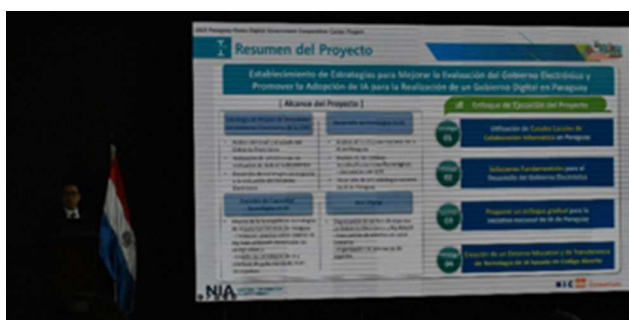
In accordance with this goal, a project focusing on artificial intelligence technology education and application strategies was initiated.

To achieve this, three major axes were established and proposed.

The first axis focuses on AI governance establishment, proposing AI ethics, AI legal framework, AI capacity strengthening and HR development, and IT industry promotion plans for AI.

The second axis concentrates on the use of data lake, open data, and data analysis and utilization platform, proposing the expansion of AI infrastructure.

The third axis suggests establishing a framework for artificial intelligence technology services, beginning with the identification of necessary AI service development areas. It includes proposals for flood detection and damage prediction, forest fire risk and damage prediction, import and export volume prediction, and budget allocation trend management.





# Activities of DGCC in Paraguay

---

## ■ Activities of Paraguay DGCC

The Digital Government Cooperation Center (DGCC) has been actively promoting various activities to build a digital government and strengthen cooperation between Korea and Paraguay. DGCC collaborated with Korean experts and Paraguayan government officials to hold a digital forum and a series of webinars on the direction of Paraguay's e-government development in the era of digital transformation, the direction and imperative of cybersecurity, and the pathways of smart city construction.

### 1. Digital Forum 2023

In November, the 2023 Digital Forum facilitate discussions on key areas of mutual interest in digital government between Korea and Paraguay including 'digital government in the era of the 4th Industrial Revolution', 'application of artificial intelligence (AI) technology to public services', 'digital transformation', and 'fintech'. The forum aimed to promote Paraguay's IT development and public service innovation in the digital era by providing an opportunity for Korean and Paraguayan experts to share opinions and insights.

The digital forum was attended by Paraguay's Vice Minister of Information and Communication, the director of the e-Government Department, public institution IT personnel, corporate IT personnel, and the University of Asunción. On the Korean side, the Ambassador of the Republic of Korea and KOTRA participated, and there were presentations by Korean experts and egovernment from the Paraguayan Ministry of Information and Communication. The session featured a presentation on the development direction and strategy for artificial intelligence.

- Digital government in the 4th industrial era
- Integrating AI into digital government
- Status of digital transformation in Korea
- Paraguayan public institutions digital transformation
- Application of AI technology to Paraguay's digital government
- AI technology applied to Paraguay's fintech technology





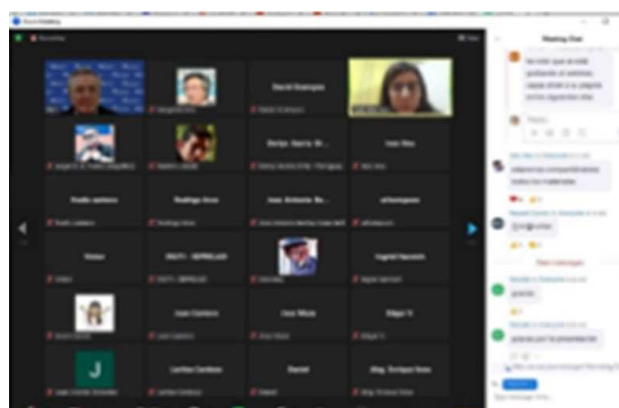
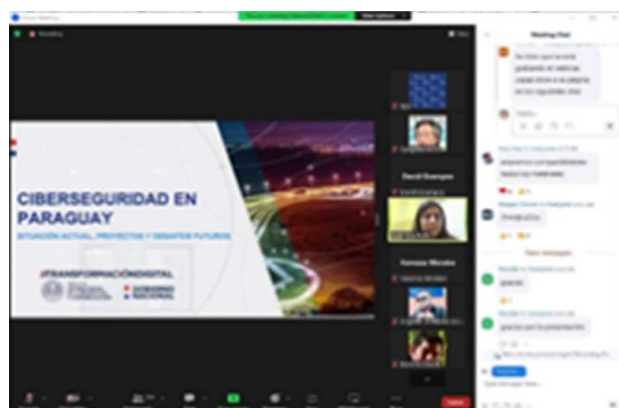
## 2. Webinar on Korea's cybersecurity laws, systems, and governance

In response to the ever-increasing cyber threats, the Paraguayan government is currently strengthening its cybersecurity measures and establishing a dedicated cybersecurity surveillance center.

In line with these endeavors, in order to bolster cooperation in the field of cybersecurity, DGCC held a webinar in cooperation with Korea's Korea Internet & Security Agency (KISA) and Paraguay's Ministry of Information and Communication in last May for IT department security officers of public institutions and the University of Asunción.

The webinar focused on Korea's cybersecurity laws, regulations, governance, and response to ransomware hacks.

Key presentations covered the current status of Korea's information protection and implementation system, ransomware security technology, and next-generation security using blockchain at KISA (Korea Internet & Security Agency), and the current status and implementation plan of Paraguay's cyber security at the Paraguayan Ministry of Information and Communication.





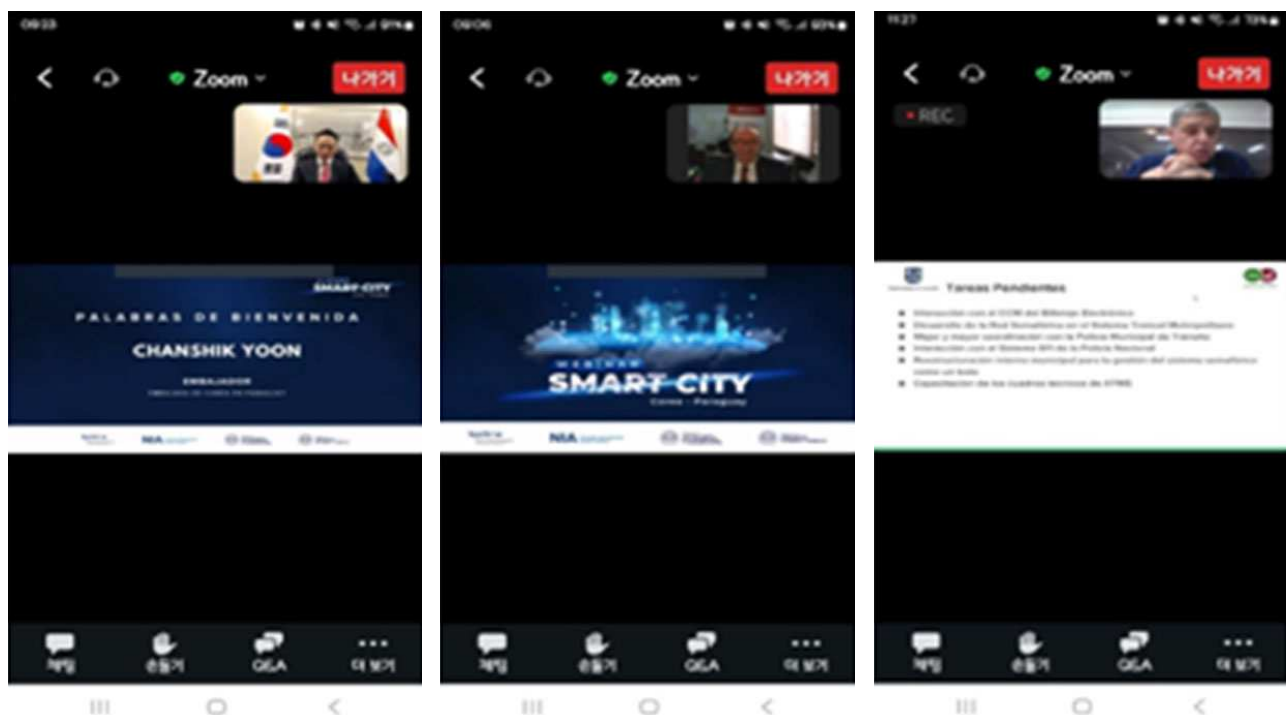
### 3. Webinar on smart city development direction through cooperation between Korea and Paraguay

Paraguay is continuing its research on smart city construction technology and direction for urban development. In pursuit of this, the country has been exploring Korea's best practices and development pathways for smart city construction and solutions from smart city specialized companies.

In June, an information exchange was held with Paraguay's Ministry of Housing and the Ministry of Information and Communication on the topic of Paraguay's smart city plan.

On the Korean side, the Embassy of the Republic of Korea in Paraguay, NIA, KOTRA, Seoul Housing and Communities Corporation, Korea Research Institute for Human Settlements, and domestic smart city companies participated, while on the Paraguayan side, the Ministry of Housing, Ministry of Information and Communication, Transportation Safety Committee, and Asunción City Hall participated. The event featured:

- Presentation of Korea's national smart city development strategy and best practices
- Presentation of Seoul smart city policies and implementation cases
- Paraguay Smart City Promotion Status Announcement
- There were introductions and solution presentations of Korean companies (LGCNS, Tracom, ESE).



# Digital Government Trends of Paraguay

## ■ Development and Implementation of the Observatory and Big Data Analytics (Data Lake) for Diverse OEE

### 1. Background

The Government Innovation Lab (GOBLAB) is committed to "designing solutions that can improve the quality of life of citizens using new information and communication technologies and to promote innovation in public management" with the goal of leveraging data to make fast and accurate decisions. Recognizing the importance, there's a clear emphasis on the necessity to strengthen infrastructure and integrate big data analytics capabilities for more effective operations.

### 2. Rationale

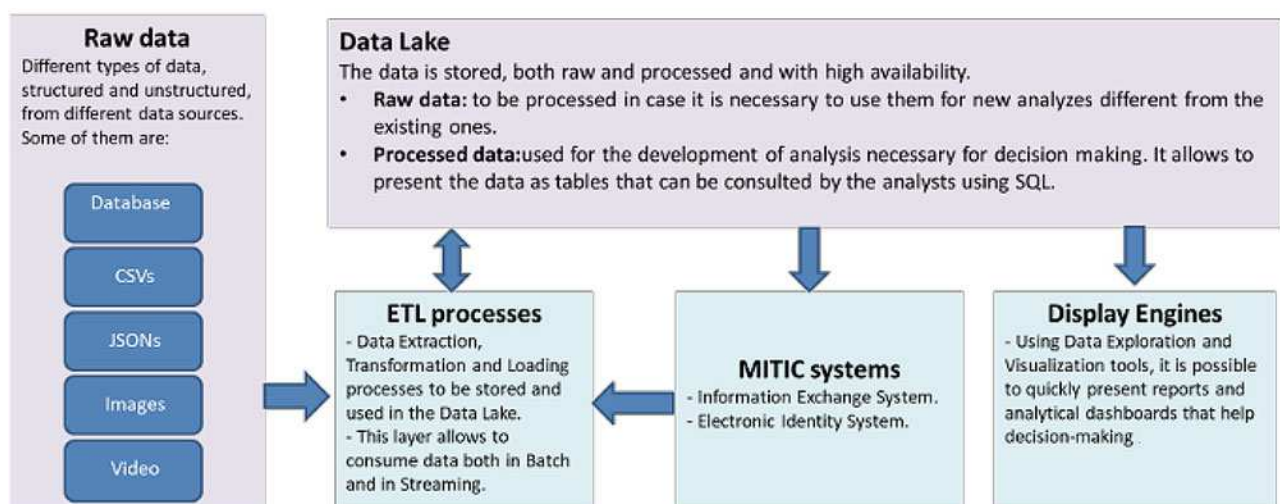
The Ministry of Information and Communication Technologies (MITIC) recognizes the value of information, and one of the main challenges that arises in the convergence of data from different institutions is their dispersed and segmented nature. This fragmentation poses a hurdle for decision-making, as it does not have a platform that allows scaling in the storage and processing of large amounts of data.

This project will provide a platform based on real statistical data obtained from the different State Bodies and Entities (OEE) that will help speed up decision-making and the creation of public policies.

### 3. General objectives

The objective is to acquire and implement a technological platform for the creation of a repository capable of storing large volumes of data (Data Lake). This platform will deliver survey services, recovery, analysis, through the development and implementation of a system to integrate information distributed in different institutions.

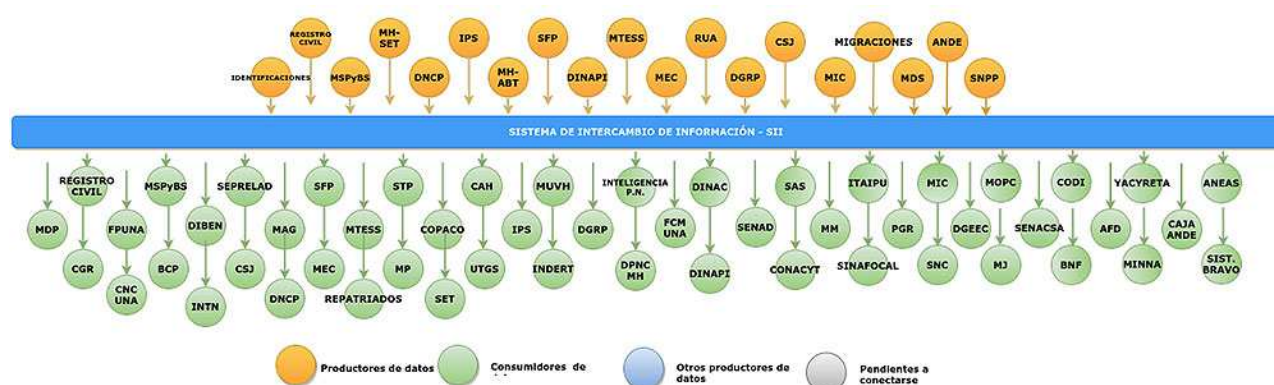
### 4. Architecture



## 5. Data sources

Identity	Health	Education	Work and Employment	Security	Goods and Assets	Home and territorial environment	Social
Identification Department of the National Police	Ministry of Public Health and Social Welfare	Ministry of Education and Sciences	MTESS	National Police	Single Automotive Registry	National Statistics Institute	Social Cabinet of the Presidency of the Republic
REC - Ministry of Justice	IPS	CONES	Public Function Secretary	Ministry of Interior	DNCP	Ministry of Urbanism, Housing and Habitat	Ministry of Social Development
INDI	SENADIS	MINNA	IPS	Ministry of Justice	General Directorate of Public Records	MADES	MINNA
SET - Ministry of Finance	MINNA		MIC	Supreme Court of Justice	Treasury		
				Ministry of Defense	Comptroller General of the Republic		

## 6. Data access mechanism



## 7. Implementation Plan for Service

The project is expected to launch the system officially by 2024. The current stage is preparing for bidding to select a developer. Once a developer has been selected, implementation will proceed through designated developmental stages.

The key tasks of development phase will include design, development and implementation of data lake and data analytics, training and technology transfer, and support and maintenance services.



# DGCC newsletter #07

## DGCC in Costa Rica

### Joint Cooperation Project

---

#### ■ The Korea-Costa Rica Digital Government Project in 2023

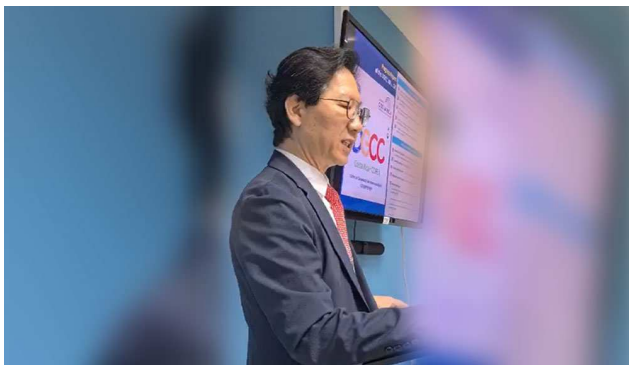
- Feasibility study of the introduction of digital identity
- Feasibility study of the introduction of Costa Rican WCAG

The Korea-Costarica Digital Government Cooperation Center (DGCC) held an opening ceremony on August 22, 2023, based on a memorandum of understanding(MOU) mutually agreed between the Ministry of the Interior and Safety(MOIS) of the Republic of Korea and the Ministry of Science, Innovation and Technology and Communication(MICITT) of Costa Rica.

The opening ceremony was attended by Korean representatives, including Ambassador Kim Jinhae of the Embassy of the Republic of Korea in Costa Rica, Nam Gilwoo, director of the center, and officials from the cooperative task execution company and Paula Bogantes, Minister of Science, Innovation and Technology, and Communications, Aldo Gonzalez, Director of e-Government, Eliana Ulate, Director of International Cooperation, and Costa Rican government officials from the Ministry of Health, the Social Security Administration(CCSS), the Supreme Election Court(TSE), the Central Bank(BCCR), and the National Committee for the Disabled(CONAPDIS).







Ambassador Kim Jinhae conveyed in his congratulatory speech that the Korea-Costa Rica Digital Government Cooperation Center is poised to assume an important role in sharing Korea's experiences through joint projects, offering technical and policy advice, and capacity development in the field of digital government. He also highlighted the ongoing cooperation between the two countries across various fields such as political affairs, economy, and development cooperation, especially with the Ministry of Science, ICT, and expressed gratitude for the cooperation of the Costa Rican government, particularly acknowledging Minister Bogantes from the Ministry of Science, ICT.

MICITT Minister Paula Bogantes highlighted that today's opening ceremony of the Digital Government Cooperation Center is a testament to the exceptional cooperation between the two countries. She expressed confidence in the Center's pivotal role in enhancing the efficiency and transparency of public administration of Costa Rica through technology and innovation. Furthermore, she emphasized the Center's significance as a platform for learning about Korea's successful digital government experience as a result of sharing the vision between the two countries. The Digital Government Cooperation Center will serve as a lighthouse to make these countries' efforts sustainable and will provide solutions for everyone based on innovation and creativity through bilateral cooperation.



#### INSUMOS DISCURSO

##### "Inauguración del Centro de Gobierno Digital Corea Costa Rica"

Fecha y hora: 22 de agosto - 10:30am  
Lugar: MICITT  
Idioma de la participación: Español  
Duración de la participación MICITT: 3 minutos

#### PROPUESTA DISCURSO

Buenos días a todos los presentes:

- Señor Jinhae Kim, Embajador de la República de Corea en Costa Rica
- Señor Nam, Jefa del Centro de Gobierno Digital Corea - Costa Rica
- Señora Heajin Lee, Directora Regional de Latinoamérica de Korea Internet and Security Agency (KISA)
- Señor Aldo Gonzalez Miranda, Director de Gobernanza Digital
- Expertos en gobierno digital, identidad digital y transformación digital de las diferentes instituciones que nos acompañan

Como ministra de MICITT, es un gran honor y placer estar aquí en este día tan significativo, en el que celebramos la inauguración del Centro de Gobierno Digital Corea - Costa Rica, una colaboración excepcional entre nuestros dos países. Hoy, marcamos un paso crucial hacia el futuro, uno en el que la tecnología y la innovación se convierten en los cimientos sobre los cuales edificamos una administración pública moderna, eficiente y transparente.

El Centro, es el resultado de una visión compartida y un compromiso mutuo con el avance tecnológico y la mejora constante de la forma en que servimos a la sociedad, en ese camino reconocemos el éxito que ha tenido Corea; generando un Gobierno Digital que ha maximizado su potencial de

Ministerio de Ciencia, Innovación, Tecnología y Telecomunicaciones  
200 metros Oeste de Casa Presidencial, Edificio MIRA  
Tel: 2259-2370  
despacho.micitt@micitt.go.cr - www.micitt.go.cr

Página PAGE12 de NUMPAGE112



#### INSUMOS DISCURSO

crecimiento, por lo que desde Costa Rica y el MICITT agradecemos esta oportunidad de poder avanzar en esta jornada con el acompañamiento de un socio tan importante como lo es Corea.

Desde Costa Rica, queremos asegurarnos que la transformación digital no deje a nadie atrás, sino que beneficie a todas las personas de nuestra sociedad. La tecnología debe ser un catalizador para la equidad y la igualdad de oportunidades, y este centro será un faro para guiar nuestros esfuerzos en esa dirección.

Permítanme expresar mi más sincero agradecimiento a todos los involucrados en la realización de este proyecto. A los equipos de Costa Rica y Corea que han trabajado incansablemente para hacer realidad este centro, su dedicación y colaboración son inspiradoras.

En este día, celebramos no solo la inauguración del espacio físico y la bienvenida de sus integrantes, sino también el inicio de una nueva era en la forma en que gobernamos y servimos a nuestros ciudadanos.

A medida que avanzamos juntos en este emocionante viaje hacia el futuro digital, reafirmamos nuestro compromiso con la innovación y creatividad en la forma de buscar soluciones para las necesidades de todas las personas.

Gracias a todos por ser parte de este hito histórico. Que este Centro de Gobierno Digital sea un símbolo de progreso y un recordatorio constante de lo que podemos lograr cuando trabajamos juntos hacia un futuro mejor.

Muchas gracias y que tengan un buen día.

Ministerio de Ciencia, Innovación, Tecnología y Telecomunicaciones  
200 metros Oeste de Casa Presidencial, Edificio MIRA  
Tel: 2259-2370  
despacho.micitt@micitt.go.cr - www.micitt.go.cr

Página PAGE12 de NUMPAGE112

Meanwhile, the Korea - Costa Rica Digital Government Cooperation Center was established after the signing of the Korea-Costa Rica digital government cooperation MOU in November 2021, through the exchange of cooperation intentions and PCP in March 2022, the pre-feasibility study report of the Digital Government Cooperation Center in March 2022, and the MOU on the establishment and operation of the Digital Government Cooperation Center between MICITT and the Ministry of the Interior and Safety of Korea in March 2023.

In the future, the Korea-Costa Rica Digital Government Cooperation Center will pursue tasks such as discovering and carrying out joint cooperation tasks in the digital government, providing technology and policy advice in the digital government, and inviting training to develop digital government-related capabilities by the end of 2025.

In particular, in 2023, the joint cooperation tasks include:

1. Feasibility study of the introduction of digital identity
2. Feasibility study of the introduction of Costa Rican WCAG(web accessibility)
3. Support Roadmap and action plan of the Digital Health Care in Costa Rica
4. Operation of Costa Rica cooperation forum and invitation training are being carried out.

# Activities of DGCC in Costa Rica

---

## ■ Unveiling Costa Rica's Roadmap for Digital Transformation of Health Sector

October 6, 2023. the Ministry of Health presented the Roadmap for Digital Health Transformation with the support of the Ministry of Science, Innovation, Technology and Telecommunications(MICITT) and DGCC. project that optimizes many processes of the Ministry of Health, towards digital transformation.

Engineer Allan Mora, Vice Minister of Health, addressed the digitalization initiatives encompassing the food handling card, health orders and the attention to complaints. Furthermore, he highlighted the Single Investment Window project, a collaborative effort involving the Ministry of Foreign Trade and PROCOMER. This project facilitates the application process for Health Operating Permit through the application, catering to individuals using either physical or digital signatures.

Engineer Manuel Rodríguez from the Costa Rican Social Security Fund explained how, thanks to the interoperability, institutions such as IAFA, CONAPDIS and INS will be able to have access to the EDUS system. Additionally, he presented , the digital prescription enabling doctors from the public and private sectors to verify the medications prescribed to a patient. Both actions seek to provide better access to information, ensuring the quality of services provided.

Dr. Mary Munive, Second Vice president and Minister of Health, commented on the platform for the registration of products of health interest, 'Register it 2.0', a platform that improves and facilitates the process of registration and control of products.

At the level of the Ministry of Health, a new management approach based on processes and results will be presented, which leads to the creation of the Transformation and Digital Health Directorate.

The Transformation and Digital Health Roadmap was carried out with the efforts of various actors, including the Costa Rican Social Security Fund, the National Insurance Institute, the Pan American Health Organization, the Costa Rican Chamber of Health, the Chamber of Technologies of Information and Communication, Agency for the Protection of Inhabitants' Data, the Federation of Professional Associations of Costa Rica, RECAINSA and private companies.

“Today marks the beginning of a great inter-institutional effort, where the fruits will be seen for the benefit of Costa Rican society,” said Paula Bogantes, minister of MICITT.

For Efraín Quesada Monge, President of the Chamber, the development of the Digital Health Roadmap strands as a crucial challenge for the country, aiming to

advance timely patient care. This initiative was joined by the Costa Rican Chamber of Health, an organization that represents the ecosystem of private health.

On the other hand, Dr. Munive, Second Vice president and Minister of Health, mentioned that she feels very satisfied with the progress made in recent months and with the active participation of the institutions involved. In addition, she indicated that from the Ministry of Health they are committed to strengthen our digital health infrastructure for the benefit of the country's population.





# Digital Government Trends of Costa Rica

---

## ■ MICITT unveils the National Strategy of Cybersecurity 2023-2027

On November 13, 2023, the President of the Republic, Rodrigo Chaves, and the Minister of the Minister of Science, Innovation Technology and Telecommunications (MICITT), Paula Bogantes, presented the National Strategy for Cybersecurity 2023-2027 at Humboldt's auditorium in San Jose.

The strategy aims to ensure a national ecosystem of safe, resilient, and inclusive cybersecurity and to protect on an effective way the country, also the state institutions, as well as the citizens from cyber threats and attacks.

The president Rodrigo Chaves expressed, "what we learned from past cyber attacks allowed us to prepare with more maturity and strictness, on which we are constructing an armor that will protect our nation and people from cybercriminal organizations and unscrupulous individuals who may attempt further attacks. This strategy is designed to safeguard our country's digital security from any potential threats."

Paula Bogantes, Minister of MICITT, mentioned that "this innovative strategy marks a significant milestone in the region by addressing the country's cybersecurity needs in a comprehensive manner, placing special emphasis on gender equality."

**The strategy consists of five fundamental pillars:**

- Infrastructure protection and cyber resilience.
- Governance and coordination.
- Legal frameworks and regulations.
- Education, training, and awareness.
- Cooperations and alliances.

By 2027, the strategy aims to build a reliable digital ecosystem in Costa Rica that not only contributes to the global security of cyberspace but also to sharing of knowledge derived from its cybersecurity experiences.

The strategy also sets goals to establish a comprehensive action framework for preventing and mitigating the risks and threats in the digital environment, promoting innovation and the development of cybersecurity solutions, strengthening the capacity to respond to incidents and promoting a solid security culture.

The National Cybersecurity Strategy 2023-2027 is a firm commitment of Costa Rica to guarantee the advancement of the country and its economy, protect the personal

and critical information of citizens, the State, the companies and ensure the public trust in the use of digital systems.



MINISTERIO DE CIENCIA,  
INNOVACIÓN, TECNOLOGÍA  
Y TELECOMUNICACIONES

GOBIERNO  
DE COSTA RICA

## Costa Rica presenta Estrategia Nacional de Ciberseguridad



MINISTERIO DE CIENCIA,  
INNOVACIÓN, TECNOLOGÍA  
Y TELECOMUNICACIONES

GOBIERNO  
DE COSTA RICA

## Costa Rica presenta Estrategia Nacional de Ciberseguridad



Ministry of  
the Interior and Safety

**NIA** NATIONAL INFORMATION  
SOCIETY AGENCY