

Urban Development Cooperation in the Era of Digital Transformation

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Jaeshin Park, Ph.D.

Korea International Cooperation Agency



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01

About KOICA

Value Hierarchy

MISSION



Reduce poverty in developing nations



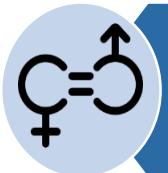
Realize sustainable development and humanitarianism



Improve the human rights of women, children and people with disabilities



Promote economic cooperation relationship with cooperation partners and pursue peace and prosperity in the international community



Achieve gender equality

CORE VALUE

People / **Peace** / **Prosperity** / **Planet**

VISION

Korea's leading development cooperation agency that pursue global social values, Leaving no one behind with People-centered Peace and Prosperity

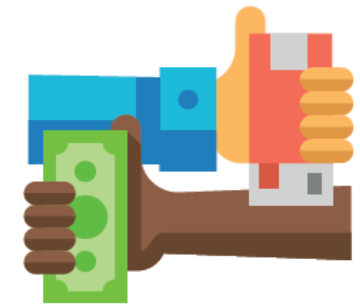
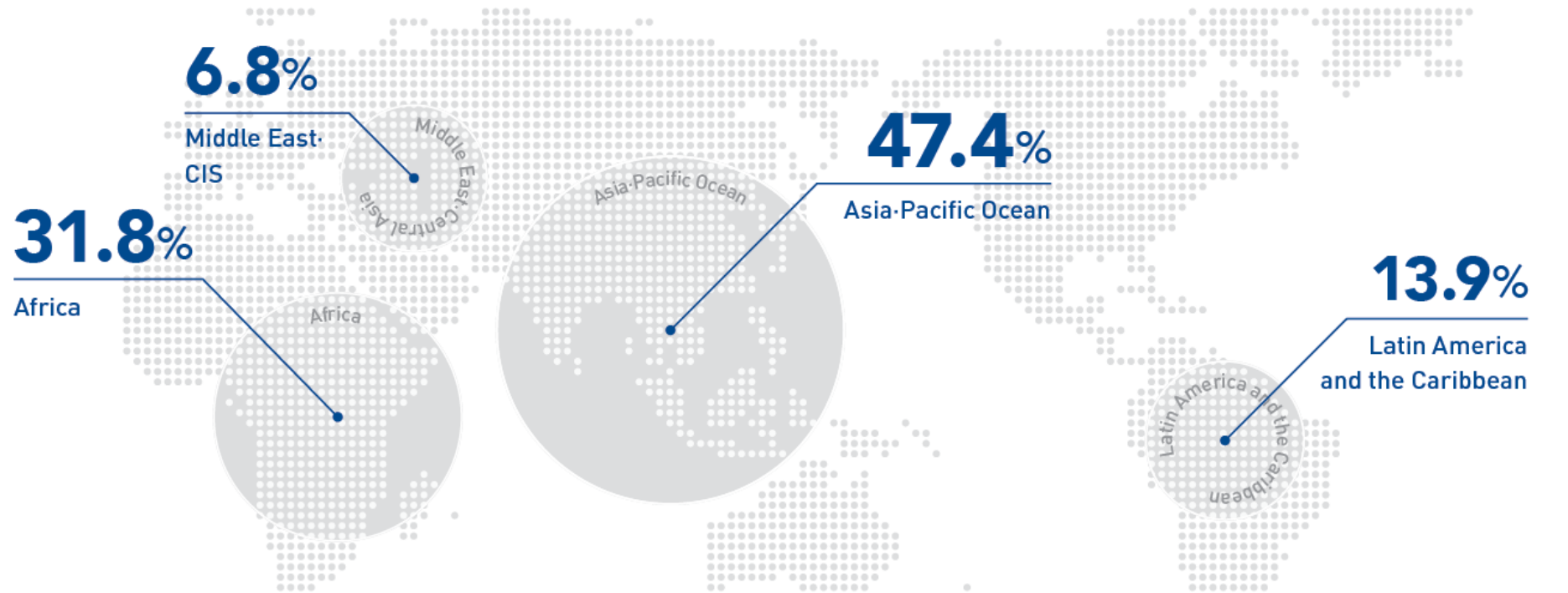
01 About KOICA

History

Year	Key Milestones
1991	Established the Korea International Cooperation Agency (KOICA)
1996	Korea joined the OECD
2009	Integrated volunteer programs of the government as the World Friends Korea (WFK)
2010	Korea joined the OECD Development Assistance Committee (DAC)
2011	Korea Hosted the Fourth High level Forum on Aid Effectiveness (HLF-4)
2017	Established the Global Disease Eradication Fund
2018	Set up 「Council for Korea Development Cooperation Program」
2019	Launched KOICA Implementation Plan of the ASEAN-ROK Future Community Vision (Signed a MOU with five ASEAN countries at 2019 ASEAN-ROK Summit in Busan)

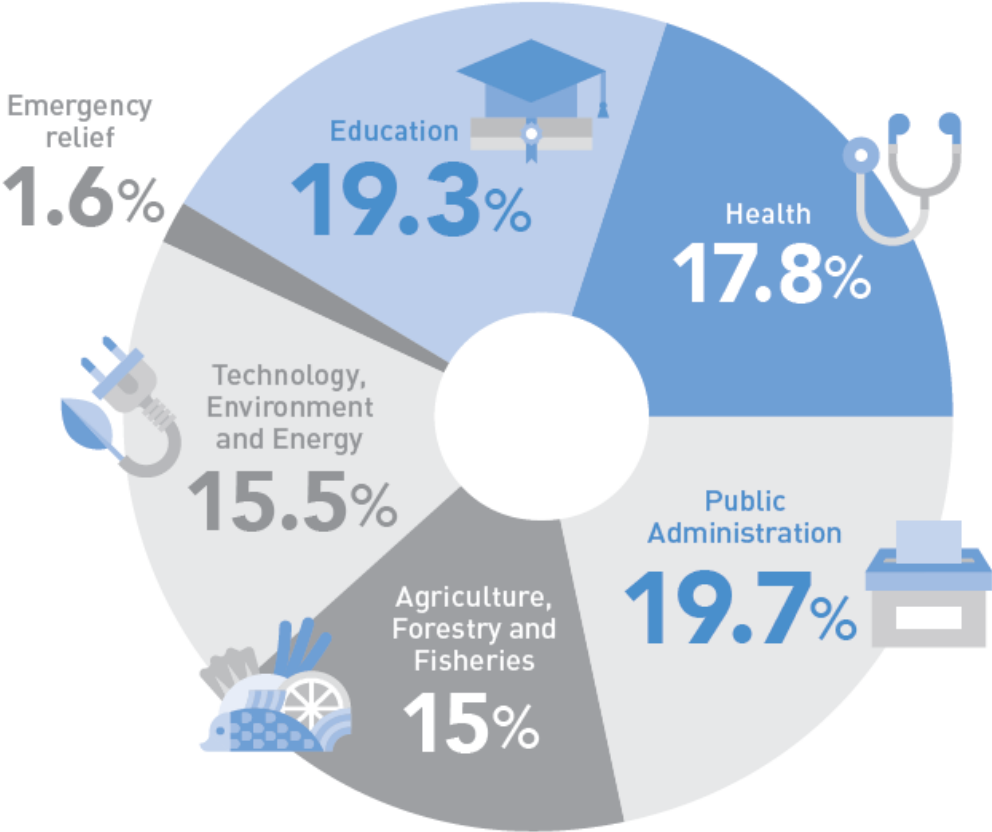
About KOICA

Aid disbursement by Region

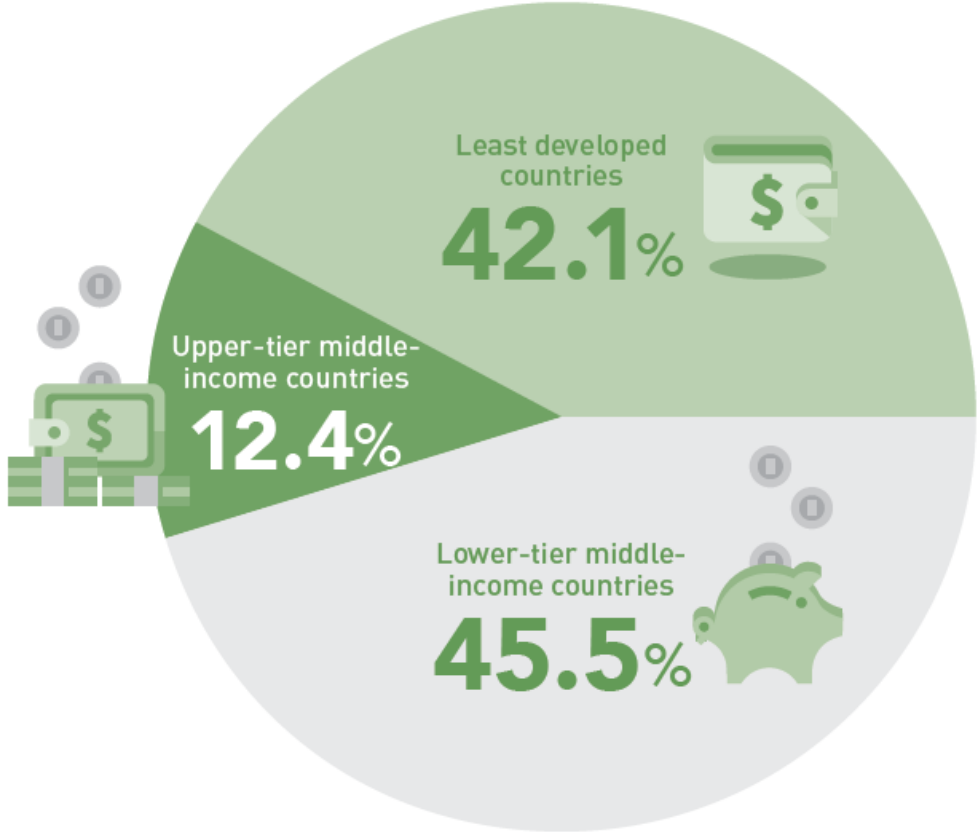


About KOICA

Aid disbursement by Sector



Aid disbursement by Income Level



About KOICA

KOICA's Core Values and Cooperation Directions

People / **Peace** / **Prosperity** / **Planet**



Project

People-oriented project based on human dignity

Global settlement of Peace

Global win-win community

Sustainable living environment

Management

People-oriented management such as human rights and safety first

Peaceful conflict mediation through dialogue, communication, understanding, and collaboration

Win-win coexistence with all internal and external customers

Eco-friendly management such as low carbon green practice

About KOICA

Urban Development & Smart City linkage with 4P

People / Peace / Prosperity / Planet



Promote sound urban planning, sustainable building, low-carbon transports, green spaces and sustainable lifestyles



Due to the high concentration of people, infrastructure, housing and economic activities, Cities are particularly vulnerable to climate change and natural disasters



Cities are important social, cultural and economic centers



Our cities account for up to 80% of energy consumption as well as 75% of global waste and carbon emissions

02 International Agenda for Urban Development

Sustainable Development Goals

1 NO POVERTY



2 ZERO HUNGER



3 GOOD HEALTH AND WELL-BEING



4 QUALITY EDUCATION



5 GENDER EQUALITY



6 CLEAN WATER AND SANITATION



7 AFFORDABLE AND CLEAN ENERGY



8 DECENT WORK AND ECONOMIC GROWTH



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



10 REDUCED INEQUALITIES



11 SUSTAINABLE CITIES AND COMMUNITIES



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



14 LIFE BELOW WATER



15 LIFE ON LAND



16 PEACE, JUSTICE AND STRONG INSTITUTIONS



17 PARTNERSHIPS FOR THE GOALS



02 International Agenda for Urban Development

SDG 11. Make cities and human settlements inclusive, safe, resilient and sustainable



SDG 11.1

By 2030, **ensure access** for all to adequate, safe and **affordable housing and basic services** and **upgrade slums**

SDG 11.2

By 2030, **provide access to safe, affordable, accessible and sustainable transport systems** for all, **improving road safety**, notably by **expanding public transport**, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons

SDG 11.3

By 2030, enhance **inclusive and sustainable urbanization** and **capacity for participatory, integrated and sustainable human settlement planning and management** in all countries

SDG 11.4

Strengthen efforts to protect and safeguard the world's **cultural and natural heritage**

SDG 11.5

By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to gdp caused by **disasters**, including **water-related disasters**, with a focus on protecting the poor and people in vulnerable situations

SDG 11.6

By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to **air quality** and municipal and other **waste management**

SDG 11.7

By 2030, provide **universal access to safe, inclusive and accessible, green and public spaces**, in particular for women and children, older persons and persons with disabilities

SDG 11.a

Support positive **economic, social and environmental links** between urban, peri-urban and rural areas by strengthening **national and regional development planning**

SDG 11.b

By 2020, substantially increase the number of cities and human settlements adopting and implementing **integrated policies and plans** towards inclusion, **resource efficiency, mitigation** and adaptation **to climate change, resilience** to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, **holistic disaster risk management** at all levels

SDG 11.c

Support least developed countries, including through **financial and technical assistance**, in building sustainable and **resilient buildings** utilizing local materials

02 International Agenda for Urban Development

Interlinkages with other Sustainable Development Goals



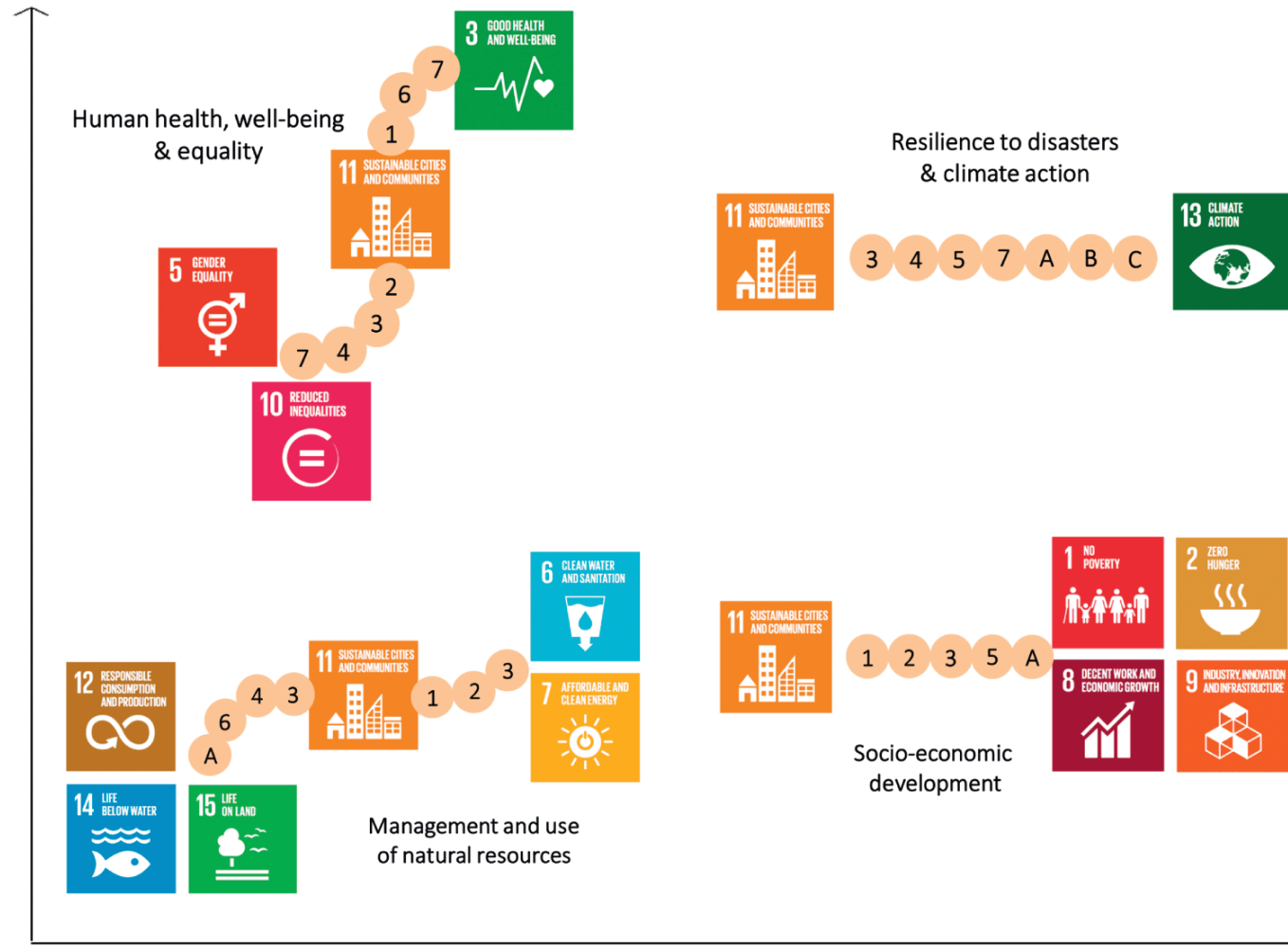
02 International Agenda for Urban Development

Synergies with other Sustainable Development Goals



Ten targets

- 1 Affordable and safe housing and basic services
- 2 Safe, accessible and sustainable transport
- 3 Inclusive and sustainable urban planning
- 4 Protect world's cultural and natural heritage
- 5 Reduce deaths and losses caused by disasters
- 6 Reduce adverse environmental impact of cities
- 7 Access to safe and inclusive green, public spaces
- A Support positive urban-rural relationships
- B Climate change mitigation & adaptation, resilience
- C Resilient buildings in least developed countries



02 International Agenda for Urban Development

UN HABITAT: "The New Urban Agenda"

➤ Basic Direction

- Recognizing "urban" as a solution and a new driving force for economic, social and environmental issues for sustainable development, rather than mere settlements, and discussing action plans to achieve Sustainable Development Goals (SDGs)
- The United Nations Conference on Housing and Sustainable Urban Development (Habitat III) in Quito, Ecuador held in October 2016 examined the performance of urban development to ensure right to housing under the framework of MDGs, and adopted the New Urban Agenda, a development agenda to ensure equal "right to the city" for all under the new framework of SDGs.

➤ New Urban Agenda Key Factors

Urban Policies, Urban Legislation & Regulations

- Determining a city's shape and characteristics in the long run
- Establishing laws and regulations related to urban development and management, including regulations on public spaces and facilities that affect a city's quality and sustainability, and laws on urban environment and buildings

Urban Planning & Design

- Well-planned urban spaces are designed to optimize economies of scale and promote social diversity through proper density and functional space layout, quality design of public space and facilities, and well-organized street patterns.

Local Economy & Municipal Finance

- Expanding local finance at the national level
- Establishing innovative policies and fiscal plans to create optimized taxation and budget allocation systems and to allow local governments to attract investment efficiently, thereby securing funds to provide public services

Habitat III follow-up measures and action plans are expected to affect future urban policies of individual countries and international organizations' assistance policies for developing countries.

Strategic Target 1. Establish urban development strategy plan for sustainable urbanization

➤ Goal

- Establish an urban development plan for economically, socially and environmentally sustainable urbanization by meticulously analyzing status and causes of urbanization in developing nations and by factoring in different characteristics of statutory/non-statutory, and metropolitan/small cities from long-term/short-term perspectives.

➤ Major Programs

Major Programs

SDGs. 11.1, 11.2, 11.3, 11.a

- **Fundamental studies to deal with urbanization by the type of city:** analyze a city's characteristics in various fields, such as size, population structure by function, economic structure, land usage, housing supply and transportation, climate change, water resources, and energy waste, thereby understanding key issues, limitations and causes, identifying what can be addressed with ODA projects, and establishing the project scope and direction.
- **Establishment of the national land development plan to implement the economic and social development plan:** set land spatial structure, growth-focused areas, and vision for urban development and establish detailed action plans for each area in an effort to implement the national development strategy and national urban policies determined at the national government level.
- **Establishment of metropolitan area growth management plans:** (i) analyze the effects of urban growth scenarios on population in-flow and industrial aggregation, etc. to prevent urban sprawl and (ii) establish sectoral plans on the introduction of the functions necessary to achieve policy goals.
- **Establishment of plans to develop and manage secondary cities:** establish an urban development plan to promote sound urbanization and economic growth of secondary cities other than primary cities in order to ensure balanced growth in the partner country.
- **Establishment of Free Economic Zone development plan:** establish a plan to develop and attract investment for FEZ planned as part of the national economic growth policy. (Advantage of FEZ: it promotes urban development while maintaining the laws and systems applicable only to FEZ because it has clear physical boundaries and is often governed by special laws.)
- **Establishment of transit-oriented urban development plan:** urban development building high-rise buildings accommodating residential, commercial and cultural facilities in stations or terminals to ensure convenience of public transport users and pedestrians and to raise land use efficiency.

Strategic Target 2. Provide urban public goods for inclusive urban development

➤ Goal

- Improve the level of services and spatial welfare provided for the socially vulnerable groups, which may be neglected in the process of urban development, and enhance their rights and participatory capacity in regards to urban space.

➤ Major Programs

Major Programs

SDGs. 11.4, 11.7

- **Solid foundation of housing supply for the socially vulnerable in urban areas**: establish housing supply policies and plans in the context of the partner city, such as public, affordable, social and low-cost housing, by factoring in housing demand, policy directions and targets, current system, and legal and financial status of suppliers.
 - **Improvement of urban public space and street environment**: improve public spaces that can rarely be created in ill-prepared urban development and expansion, such as parks, plazas, and historical and cultural facilities, and improve street environment, including walkways and pedestrian-only spaces in order to improve the public nature of urban development.
 - **Establishment of foundation for community participatory urban regeneration**: urban regeneration to encourage residents to take the initiative in creating a sustainable community by comprehensively improving their region's physical, social, cultural, and economic environments with an aim for gradual improvement of residential environment instead of urban regeneration through a complete demolition.
-

Strategic Target 3. Integrated and multi-sectoral approach for resilient and safe urban development

➤ Goal

- Identify potential risks in urban areas; set priorities; establish appropriate application plans, including plans to build infrastructure essential to mitigate the risks; and create plans and models that connect development and financing to execute such infrastructure projects, thereby ensuring resilient and safe urban development.

➤ Major Programs

Major Programs

SDGs. 11.5, 11.6, 11.b, 11.c

- **Survey of vulnerable urban areas and establishment of appropriate application plans**: collect information on risk factors in all sectors based on local characteristics, e.g. accidents, natural disasters, transportation, and crime and disclose it to the local residents, and establish appropriate application plans for vulnerable areas and low impact development (LID), etc.
- **Urban development projects linked to key infrastructure construction**: integrated, comprehensive urban development projects to reduce the time lag from the planning to the actual construction that not only take urban planning approach (e.g. land use improvement, reservoir creation) but also consider the construction of key infrastructure required to ensure resilience and safety of the region (e.g. transportation, water resources, energy, waste).
- **Creation of urban development project implementation model and connection with development funds**: establish a model to implement urban development plans, review bankability, promote projects, support activities to attract investors, align follow-up support from relevant government offices in Korea, and support application for projects initiated by international organizations such as MDB.

02 Challenges & Opportunities of COVID19

Challenges

- Immobility
- Black hole
- Cancellation / Postponement

Approaches

- Business as Usual
- Responses to requests from policies and the society
- Window of new opportunities

Opportunities

- Receptivity to Change
- Korean New Deal : Digital new deal, Green new deal

危機

Digital Transformation

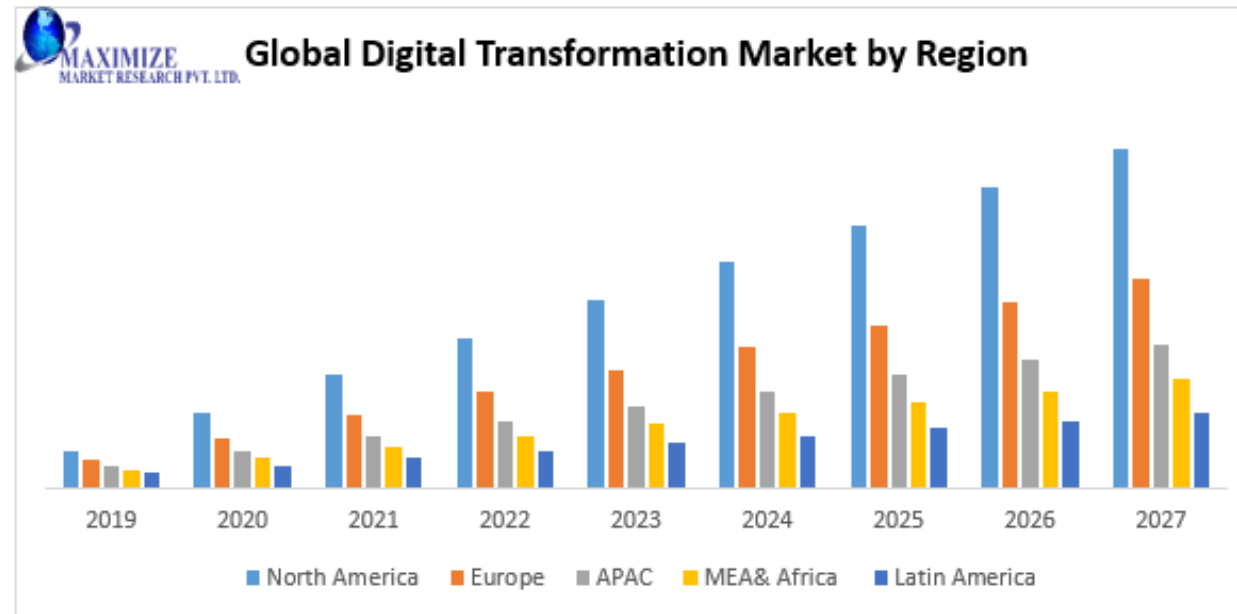
Definition

Digitisation is the conversion of analogue data and processes into a machine-readable format.

Digitalisation is the use of digital technologies and data as well as interconnection that results in new or changes to existing activities.

Digital transformation refers to the economic and societal effects of digitisation and digitalisation.

<Source: OECD, 2019, “Going Digital: Shaping Policies, Improving Lives”>



03 Digital Transformation Changes Life!

Smart Life through digital transformation

Past

MYEONGDONG ROUTE
JUST TO MINUTE TO MYEONGDONG

HOTEL	MYEONG DONG	IBIS MYEONGDONG	INSA DONG	HOTEL
8:00	8:10	8:15	8:20	8:35
9:00	9:10	9:15	9:20	9:35
10:00	10:10	10:15	10:20	10:35
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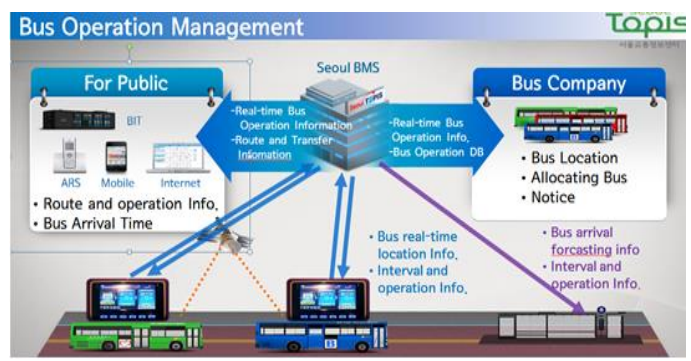
DOOTA DUTY FREE & DONGDAEMUN ROUTE

HOTEL	KWANG JANG MARKET	DOOTA DUTY FREE	HOTEL
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SERVICES MAY BE DELAYED DUE TO TRAFFIC CONDITION.



Digital Transformation



Present



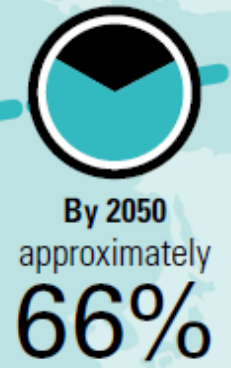
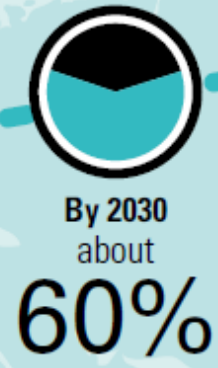
People Go To Cities

Urbanization is an unstoppable phenomenon

▶ *The world is rapidly urbanising*



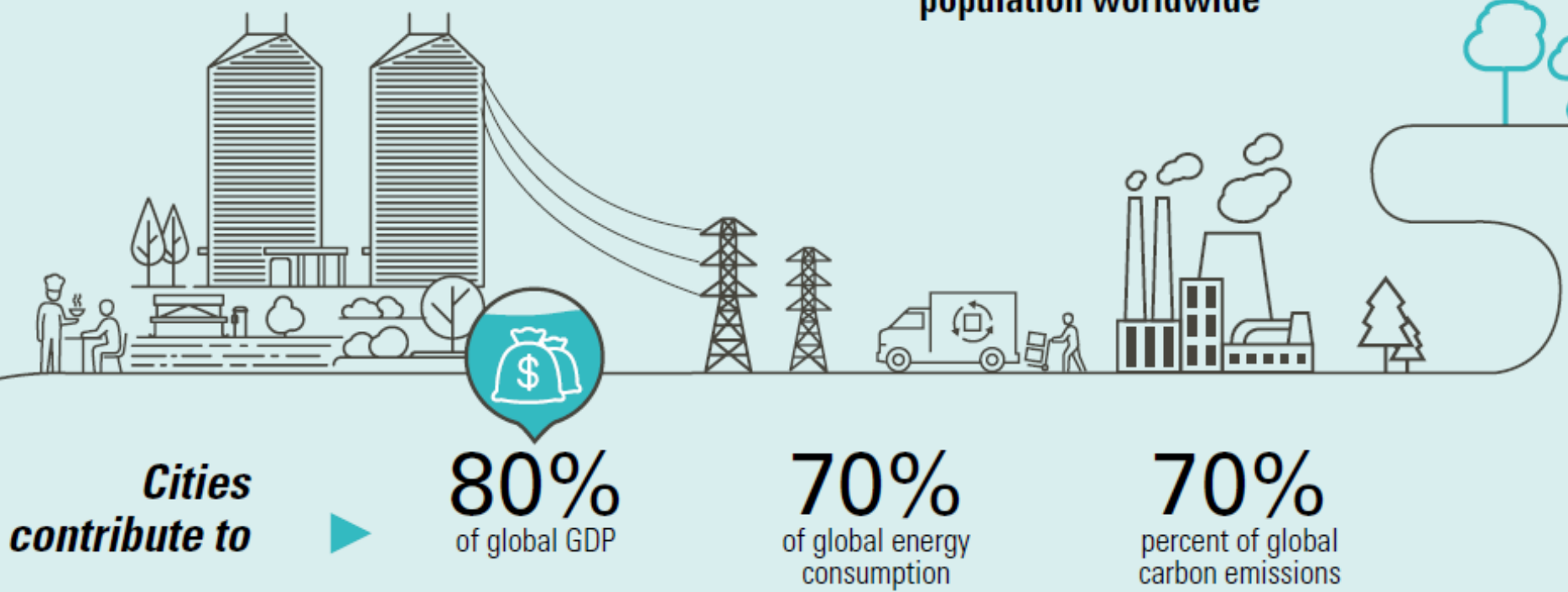
The world's population living in cities or urban centres has risen steadily over the years



Source: United Nations, 2018, SDG 11 Synthesis Report, High Level Political Forum 2018

Cities Continue to Grow

From 2010 to 2050
2.5 to 3 billion people
will be added to the urban
population worldwide



Source: United Nations, 2018, SDG 11 Synthesis Report, High Level Political Forum 2018

02 Urbanization Causes Problems

Urban problems caused by unplanned urbanization

- Intensive urban growth can lead to greater poverty, with local governments unable to provide services for all people.
- Concentrated energy use leads to greater air pollution with significant impact on human health.
- Automobile exhaust produces elevated lead levels in urban air.
- Large volumes of uncollected waste create multiple health hazards.
- Urban development can magnify the risk of environmental hazards such as flash flooding.
- Pollution and physical barriers to root growth promote loss of urban tree cover.

03 Digital Transformation Enables or Facilitates

Data based urban solution

- Urban processes and services can be made more efficient and effective in a connected city. The massive collection of data and its transformation into information through powerful analysis tools allows improving urban management.



03 DT's Implications on People, Urban, SDGs

THINKING SMART

Digital intelligence is the key to making life safer and more efficient. At Intel Labs, engineers create ingenious ways to build high-tech, connected devices into everyday items to help you make smarter decisions.

50 billion

Expected number of connected devices by 2020. That's an average of six devices per person!



70%

Mobile traffic growth in 2012.

36 million

The number of connected tablets in 2012.

SMART HOMES

The Near Future

Living a seamlessly connected lifestyle isn't as far off as you would think: Intel chips can be placed virtually anywhere, from human skin to a running shoe.

1

Intelligent dishes and silverware that determine dietary needs.



2

Connected with wireless displays at home.



3

Connected with wireless mobile displays.



SAFER DRIVING

Intelligent street lighting in Helsinki, Finland, uses automatic sensors to dim or brighten depending on environmental conditions.

1

Predictive mapping to calculate road safety.



2

Vehicle sensors that transfer inter-car data about position and velocity.



SUSTAINABLE LIVING

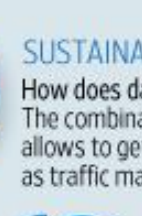
How does data fusion work for cities?

The combination of fixed, mobile and voluntary sensors allows to get larger impactful insights and services, such as traffic management.

1

Voluntary mobile sensing

Participants volunteer to sense the environment with external devices like phones.



2

Fixed sensing sensors are used to collect data on environmental elements.



3

Opportunistic mobile sensing

The system uses an external device to collect information.



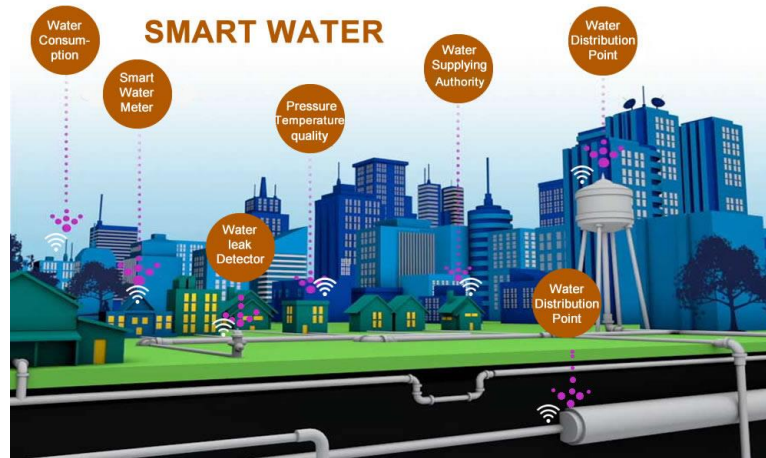
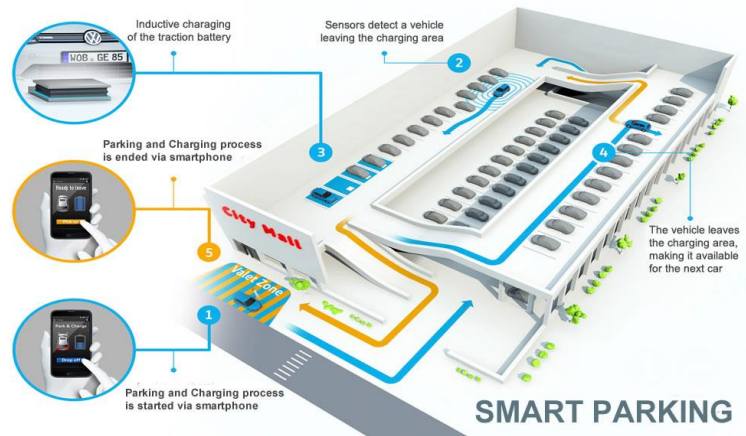
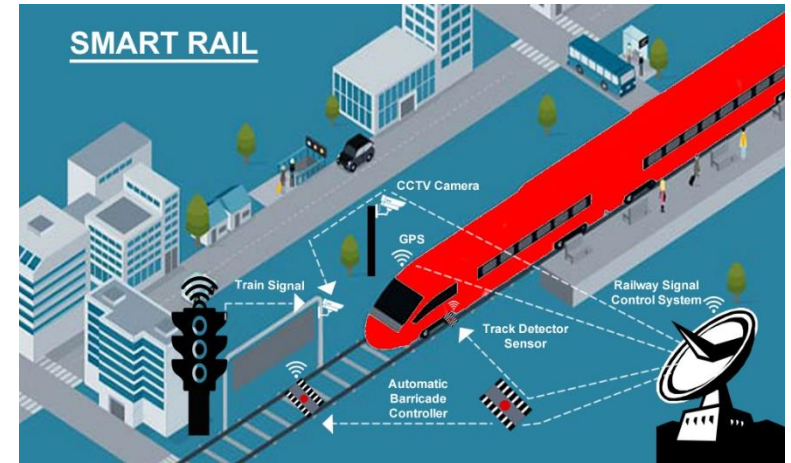
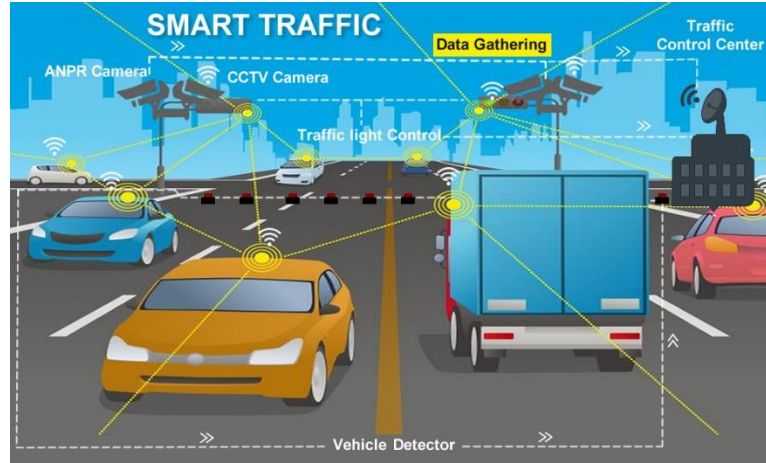
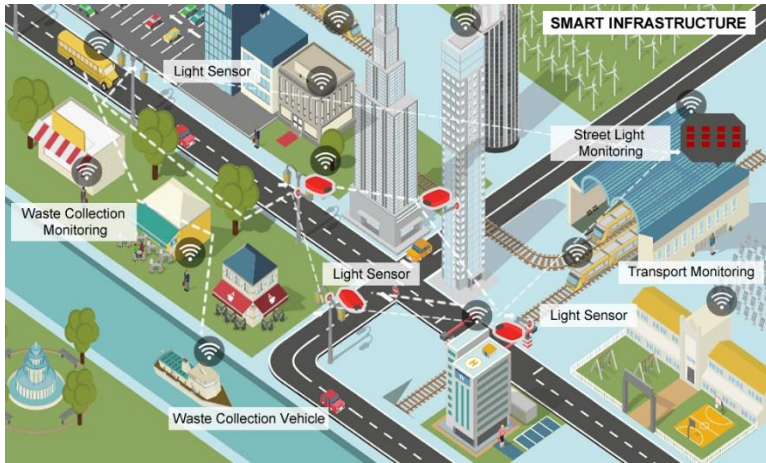
200% increase

The expected growth in five years for the smart home market.

Source: Urban population growth (World Health Observatory); Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update 2012-17; Intel data

03 DT's Implications on People, Urban, SDGs

Driving Digital Transformation in Smart Cities



03 DT's Implications on People, Urban, SDGs

ICT & SDGs

 <p>1 NO POVERTY</p>	providing timely and accurate information services to help ensure equal rights to economic resources.	 <p>7 AFFORDABLE AND CLEAN ENERGY</p>	ICT-enabled solutions such as smart grids, smart buildings, homes and smart logistics.	 <p>13 CLIMATE ACTION</p>	ICT can optimize value chains, reduce resource usage and waste, and also plays a crucial role in sharing climate and real-time weather information.
 <p>2 ZERO HUNGER</p>	giving farmers direct access to market information, weather forecasts, as well as planting, harvesting and targeted irrigation advice, logistics and storage.	 <p>8 DECENT WORK AND ECONOMIC GROWTH</p>	ICT skills have become a prerequisite for many forms of employment in the 21 st century.	 <p>14 LIFE BELOW WATER</p>	big data can be used to analyze biodiversity, pollution, weather patterns and ecosystem evolution, and to help plan mitigation and adaptation strategies.
 <p>3 GOOD HEALTH AND WELL-BEING</p>	Connectivity enables health workers to be connected to information and diagnostic services and health practices.	 <p>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</p>	ICT will continue to play an essential role in building and maintaining resilient infrastructure, in promoting inclusive and sustainable industrialization	 <p>15 LIFE ON LAND</p>	use of big data to analyze short- and long-term trends and plan mitigation activities.
 <p>4 QUALITY EDUCATION</p>	allowing students to access learning assets and teachers to prepare for classes anytime, anywhere.	 <p>10 REDUCED INEQUALITIES</p>	help bring information and knowledge, and therefore social and economic progress, to disadvantaged segments of society	 <p>16 PEACE, JUSTICE AND STRONG INSTITUTIONS</p>	Government use of open data increases transparency, empowers citizens, and helps to drive economic growth.
 <p>5 GENDER EQUALITY</p>	allowing women and girls to access information of importance to their productive, reproductive and community roles as well as involving women in urban planning.	 <p>11 SUSTAINABLE CITIES AND COMMUNITIES</p>	ICT is essential in offering innovative approaches to managing cities more effectively and holistically, with ICT basic infrastructure and applications	 <p>17 PARTNERSHIPS FOR THE GOALS</p>	enhancing international cooperation and coordination; promoting technology transfer; capacity-building; forging multi-stakeholder partnerships; and enabling and improving data monitoring and accountability.
 <p>6 CLEAN WATER AND SANITATION</p>	ICT is particularly important in terms of smart water management, optimized operations and improved quality of service to customers.	 <p>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</p>	ICT can foster sustainable consumption and production through product-specific improvements, increased dematerialization and virtualization		

Source: Ericsson, 2016, ICT&SDGs, Earth Institute, Columbia University in the city of New York

03 DT's Implications on People, Urban, SDGs

ICT for Development



**Increase access to
information and
services**



**Increase connectivity
between people and
organizations**



**Increase productivity
and resource efficiency**

03 People Matter!

Smart Cities Need Smart Citizen

- While the digital revolution is offering an unprecedented window of opportunity to improve the lives of millions of urban residents, there is no guarantee that the rapid diffusion of new technologies will automatically benefit citizens across the board. Smart city policies need to be designed, implemented and monitored as a tool to improve well-being for all people.
- Smart cities need to have inclusive, innovative and sustainable smart citizens. Smart cities are directly proportional to smart citizens
- The smarter a city is, the greater is its dependence on equally efficient, smart citizens. Without smart citizens, the Smart City proposals will hold good only for documentation – not implementation

People Matter!

Smart Cities Need Smart Citizen

A TALE OF TWO CITIES

CITIZEN ENGAGEMENT



Meet Palesa
Palesa is a citizen in East City Municipality and she wants to be a smart citizen. She wants to communicate to her municipality about a water leak outside her house. Palesa has tried logging incidents via the City Call Centre before, but she finds being put on hold for lengthy periods uses up her airtime. She has even had instances where her call was dropped once she reached the top of the queue. In other instances, she cannot be heard over the Call Center chatter.
Palesa is frustrated because she just wants to be a good citizen and help her community.



Meet Thabo
Thabo is a Smart Citizen in West City Municipality. He downloaded the new Smart Citizen App provided—for free—by his municipality. The app allows him to log any water leaks in his city on his smart phone. It also allows Thabo to add: the exact location with GPS coordinates; the street name; a picture and a description if he wants to add more information. He can log his water incident, or any other incident in his city on the free Smart Citizen App and be assured that the right information will go to the right people.
Be like Thabo - be a Smart Citizen.

CITY CONTROL



Meet Mandla
Mandla is the Mayor of East City Municipality. He wants to improve service delivery in his municipality and get his citizens involved. He has a dilemma - he struggles to assign the right teams to the right jobs because of inaccurate information being logged in his Call Centre.
His citizens are also frustrated that they are not getting any feedback on any incidents that they have reported.

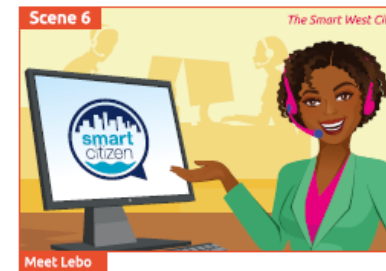


Meet Mpho
Mpho is the Mayor of West City Municipality. Mpho purchased Smart Citizen for her municipality. Since she launched the app, the feedback from citizens is that her municipality is improving on its service levels and listening to its people. Through the app she can identify where traffic lights in the North of the city are prone to failure or where she has a sustained problem of old pipes falling in the South. She can even plot this information on a map with pinpoint accuracy allowing her to focus her efforts in areas that need attention.
Be like Mpho - help build a Smart City comprised of Smart Citizens working together with the City.

CITY CONTROL



Meet Sally
Sally is a Call Center Agent in East City and she's overwhelmed by the number of calls coming into the Call Center. She's so overwhelmed, that she doesn't even have time to call and report back on incidents, to citizens who have reported them. The influx of calls is from citizens who want to help their city and environment. On the other hand, concerned citizens get frustrated with the lack of updates from the Agents. Sally also finds that the information provided by citizens is sometimes incomplete or vague.
This makes allocating a Field Agent - almost impossible.

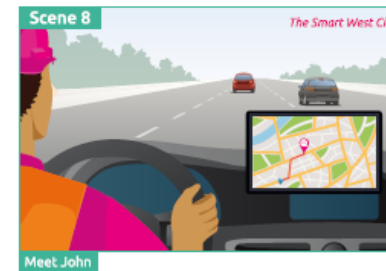


Meet Lebo
Lebo is a Call Center Agent in West City and she's watching incidents being logged by citizens via the Smart Citizen App flow, into the City Control Service Request list. Some are routed to the relevant departments automatically, such as waterleaks to Water and Sanitation and traffic lights and potholes to Roads. Some require manual intervention, so she clicks on the incident and allocates it to a Field Agent. Citizens are notified on the receipt and progress of their incidents on their app.
Be Like Lebo, calm, ordered and focussed on providing excellent citizen service.

FIELD AGENT



Meet Piet
Piet is a Field Agent in East City. He has gone to City Hall to collect his jobs for the day and he has a huge pile of job cards. His first job is a water leak on Oxford Road, but he doesn't know where exactly it is. So, he drives up and down the road to find it.
Piet is not sure how he will get through his workload at this rate, as he still needs to fill in the forms to confirm completion and submit them.



Meet John
John is a Field Agent in West City. John set off this morning with his day's jobs loaded on his tablet. He knows where his first job is thanks to the citizen's pinpoint accuracy in logging it with the Smart Citizen App. John is following the GPS directions on his tablet and will soon be fixing his water leak and then the next. Once he has fixed it he will mark it as complete. Both City Control and the citizen will be notified on the system and the app that the leak has been fixed.
Be Like John, efficient, planned and responsive to the City's inevitable maintenance and incidents.

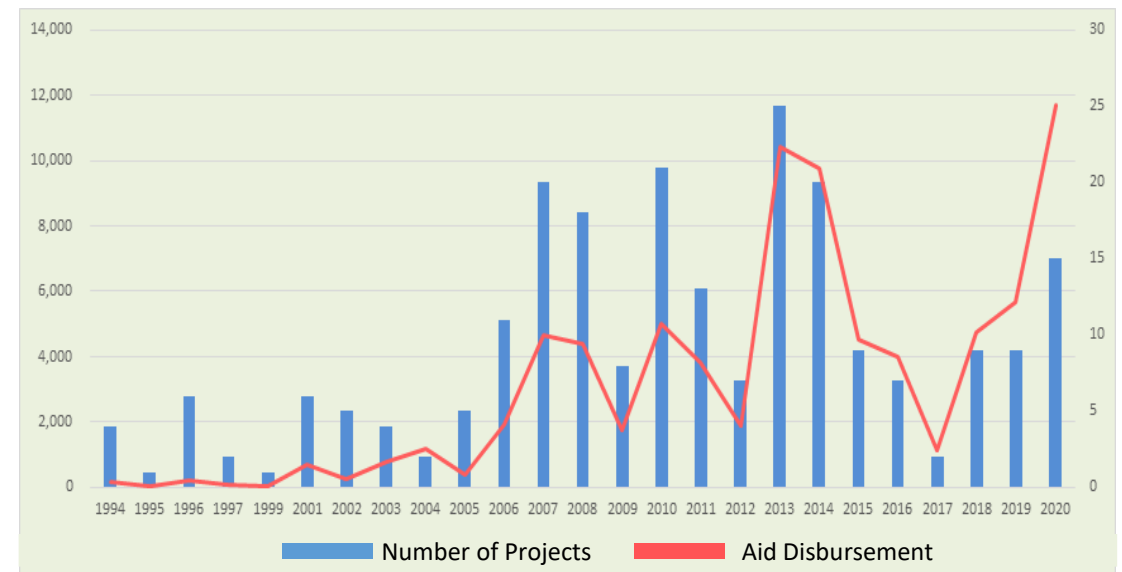
KOICA's Responses to DT

KOICA's Efforts

- From 1991 to 2020, 230 projects are implemented in the e-government and ICT fields, amounting to about 790 million dollars.

(Increase/decrease) Compared to the 1990s, the number of projects has increased by about 10 times over the past 10 years, and the disbursement of projects has increased by about 100 times.

Year	1990~2000	2001~2010	2011~2020
Number of Projects	14	100	116
Amount of Aid Disbursement(USD)	5 Million	210 Million	570 Million
Rate of Increase (Based on the aid disbursement)	-	42 Times(▲)	114 Times(▲)
Average of Aid disbursement (USD)	380,000	2,100,000	4,980,000



04 KOICA's Responses to DT

Lessons learned

- (E-Government) Through the “e-government” project in the field of technology, environmental energy, and public administration, it was improved that public trust, work efficiency, and communication between organizations and companies by realizing fair and transparent administrative procedures.
- (Information System) Through the “information system construction” project in the public administration and health sectors, it was improved that permanent data securing, transparency and public access to data through digitalization, and data-based policy establishment capabilities.
- (Human Resource Development) Through the capacity building for IT technical human resources, it was improved that local industry vitalization, accessibility to IT education, IT index in education.

SWOT Analysis and Future directions

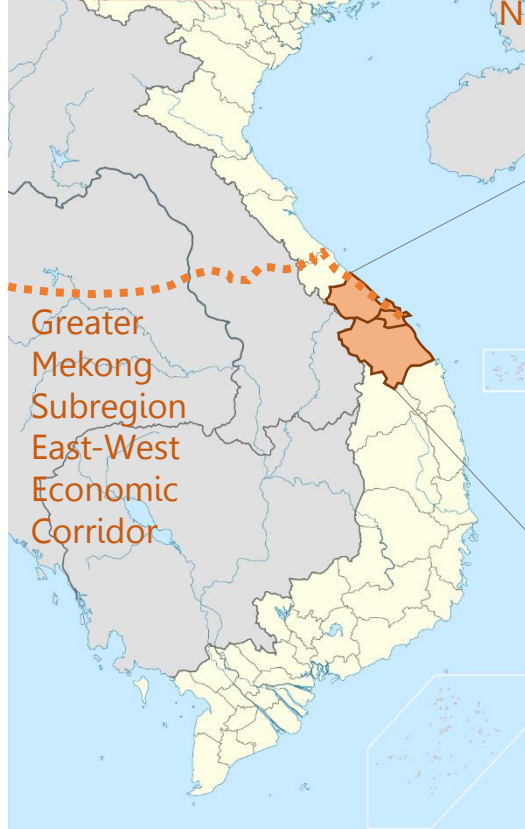
		Strength	Weakness
opportunity Threats	Increasing importance of ICT adaptation in ODA	Abundant experience in project implementation SO Strategy <ul style="list-style-type: none"> • Discovering e-government and ICT projects for major partner countries according to the New Southern Policy. • Implementing field-oriented projects, establishing a planning system and strengthening management. 	Lack of connectivity between projects WO Strategy <ul style="list-style-type: none"> • Project planning through diagnosis of national informatization level. • Focusing on Korea's comparative advantage business within limited resources.
	lagging behind the pace of technical evolution	ST Strategy <ul style="list-style-type: none"> • Strengthen collaboration with ministries and institutions through the cooperation platform. • Establishment of a system for promoting digital development cooperation projects based on new technology with private entities 	WT Strategy <ul style="list-style-type: none"> • Sharing information on international cooperation with ministries, institutions and private sectors. • Promote projects using digital new technologies based on cooperation with other donor countries and international organizations

KOICA's Responses to DT

KOICA's Strategic Framework for DT(Draft)

[Vision] KOICA leads the creation of global social value with digital competitiveness			
[Strategic Target 1 : Digital Transformation of Project]		[Strategic Target : Digital Transformation of Management]	
Enhancing the achievement of SDGs centered on 4P through innovation of execution model and establishment of digital ecosystem.		Quick Respond to digital change and improve organizational effectiveness and efficiency through digital transformation.	
Innovation of Execution Model	Establishment of Digital Ecosystem	Promotion of Digital Management	Knowledge sharing and learning / Spreading digital culture
<ul style="list-style-type: none"> Reinforcement of digital elements in all phases of project and creation of implementation model based on innovative technology. 	<ul style="list-style-type: none"> Improvement disparities through digital ODA in partner countries. 	<ul style="list-style-type: none"> Establishment of data based decision making support system. 	<ul style="list-style-type: none"> Strengthening employee's capacity to deal with digital technology.
<ul style="list-style-type: none"> Data based project management, evaluation and feedback system. 	<ul style="list-style-type: none"> Enlargement of cooperation and participant in the field of international development. cooperation. 	<ul style="list-style-type: none"> Office automation using digital technology. 	<ul style="list-style-type: none"> Internalization of digital business process.
<ul style="list-style-type: none"> Global knowledge sharing based on digital technology 	<ul style="list-style-type: none"> Establishment of local partnership based on digital technology. 	<ul style="list-style-type: none"> Business process innovation using digital technology 	<ul style="list-style-type: none"> Creation of innovation and problem solving-oriented digital corporate culture

Smart City Valley Program in Central Viet Nam



Da Nang - Disaster Management & Safety Smart City

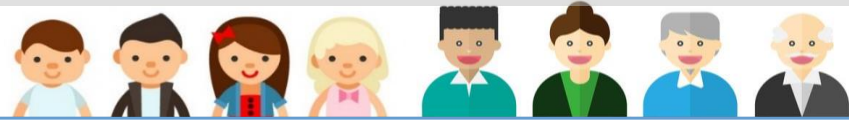
Green and Smart Urban Resilience Center Implementation and Operation (2020-2025/10.5 M USD)

Quang Nam - Smart City (Urban Management)

Smart City Establishment of Quang Nam Province (Tam Ki City) (2020-2025/9 M USD)

05 CASE Smart City Valley Program in Central Viet Nam

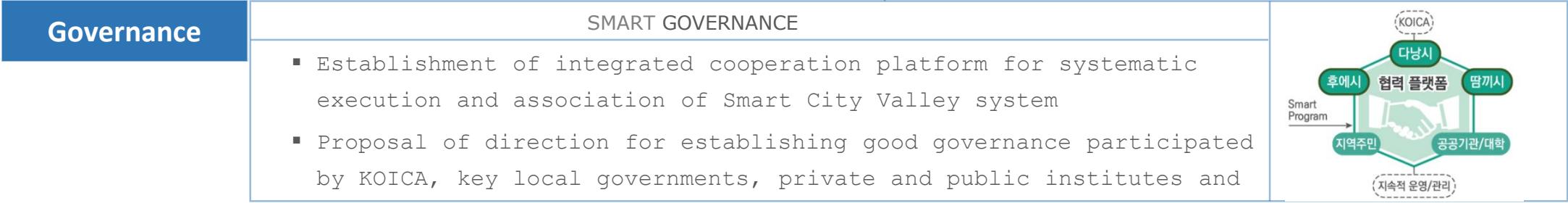
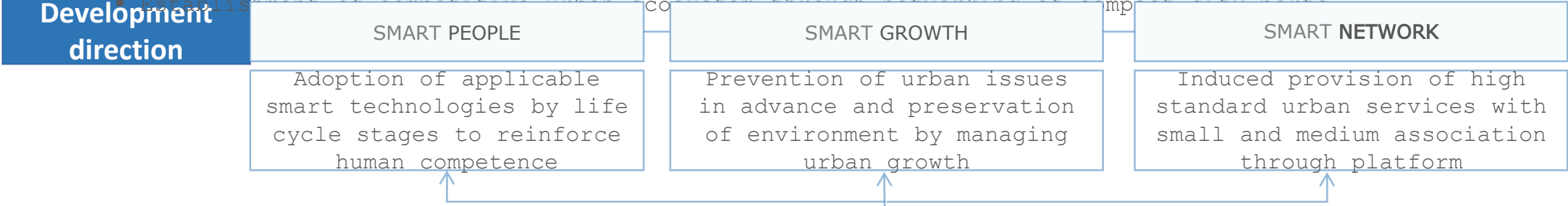
Vision and Goals



Vision People-centric "SMART CITY VALLEY" centered on laying the foundation for Smart City

Goal KOICA establishes the foundation for Smart City in small and medium-sized ASEAN cities

- Systematic management of urbanization by applying Smart City technologies so that the problems of large cities are not repeated
- Establishment of comprehensive Smart City governance
- Reinforcement of human competence and establishment of platform economy



05 CASE Smart City Valley Program in Central Viet Nam

Needs of linked projects

Problems of implementing individual Smart City projects

Absence of long-term regional vision

Lack of cooperative system between regions

Redundant investment

Connection strategies

Efficient utilization of regional resources

Vitalization of cooperative project implementation between regions

Prevention of overlapping investment in Smart City projects

Complementary between regions and division of role

Systematic implementation based on long-term roadmap

Project execution following the vision of the entire region

Progressive project implementation based on roadmap

Common problems of the region such as system and standards resolved

Regionally connected Smart City Valley
Covering individual Smart City projects across regions

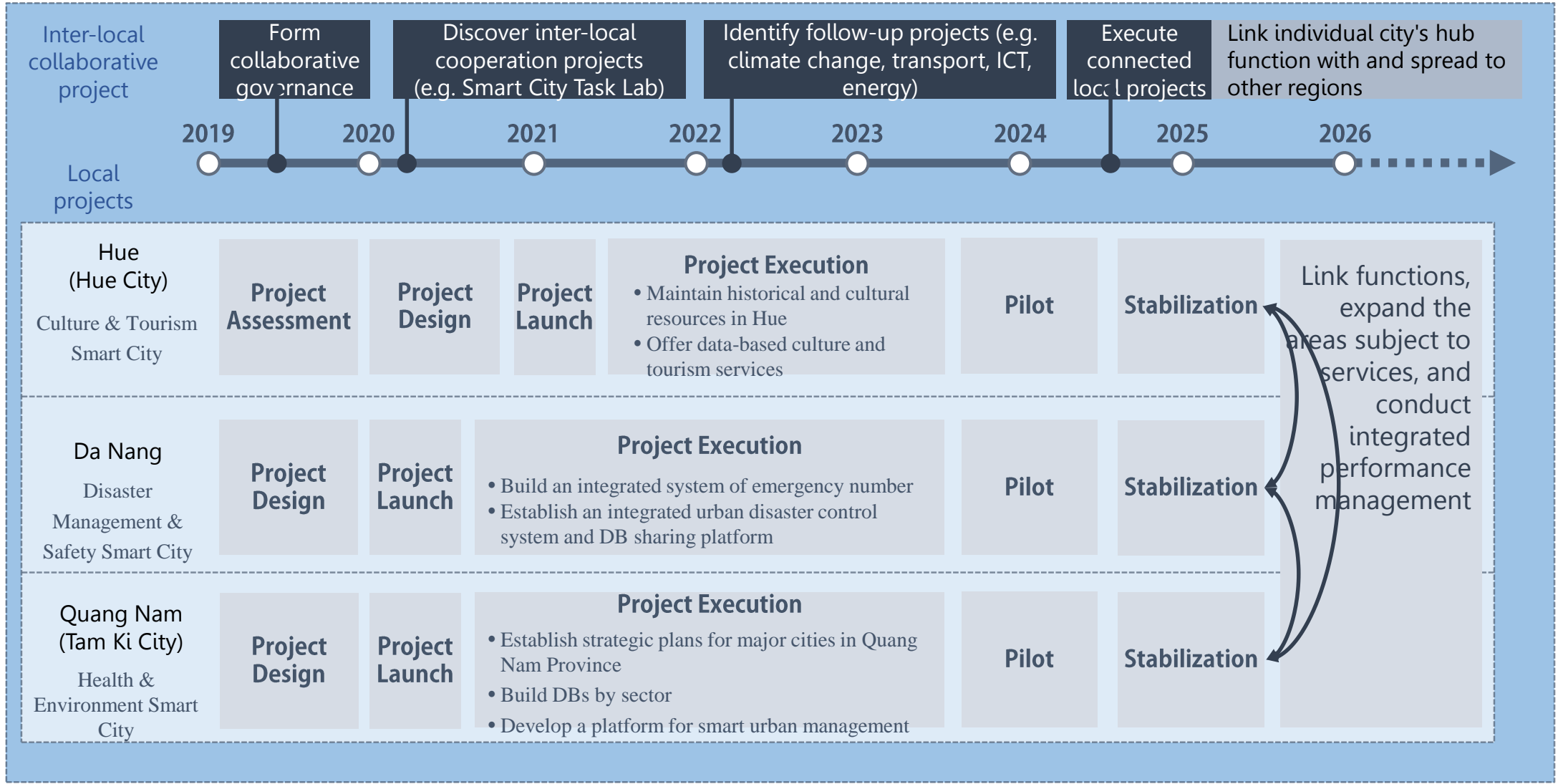
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Program Roadmap

Project Component	Policy/Plan	Law/Institutions	Capacity Building	Pilot Project	Organization
Infrastructure Development					
Feasibility Study	<ul style="list-style-type: none"> National Policy 	<ul style="list-style-type: none"> Projects related to related organizations in Korea 	KOICA Projects <ul style="list-style-type: none"> Da Nang - Disaster Management & Safety Smart City Quang Nam - Smart City (Urban Management) Hue - Culture & Tourism Smart City 		Future Task ① <ul style="list-style-type: none"> Establishment of Smart City Collaborative Governance
Basic/Detailed Design	<ul style="list-style-type: none"> Viet Nam Government project 				
Financing	Future Task ④ <ul style="list-style-type: none"> Establishment of Financing Model Establishment of PPP Law or Guideline 		Future Task ③ <ul style="list-style-type: none"> EDCF, KIND(Smart City Fund) Public Private Partnership Project 		
Construction					
Operation/Maintenance	Future Task ② <ul style="list-style-type: none"> Smart Education Program(Public, Experts, Citizen) 				

05 CASE Smart City Valley Program in Central Viet Nam

Interlinkages among individual project



Smart City Valley Program in Central Viet Nam

Da Nang Smart city project


- Provision of disaster management decision-making system
- Continuous validation of disaster management platform through pilot operation
- Fostering and expansion of outstanding workforce

Current Status of Da Nang

- The Danang disaster management platform which is currently being implemented aims to achieve prompt and efficient site response concerning emergency disaster situations centered on Integrated City Disaster Management Center but detailed disaster situation analysis utilizing data is insufficient
- Data-based decision making support system through preliminary evaluation of risk level and others required

Establishment of decision-making support system based on disaster data

- Provision of scenario-based simulation for efficient disaster response through data analysis summarizing monitoring data, sensor information, emergency reporting information, spatial information and others
- Provision of real-time information by connecting with site responsive service during emergency situations



Effectiveness validation of disaster management platform

Establishment and pilot operation of disaster management platform based on Danang City's outstanding IT infrastructure

Evaluation of practicability during emergencies

Accumulation of disaster management platform operation experience

Continuous identification of improvement measures

Continuous reinforcement of disaster response competence

Gradually expand application by securing sustainability of platform operation

STEP 1 Foster workforce through IT College

- Danang City owns colleges specializing in IT based on KOIKA's support so systematic education system can be prepared from the beginning stage of the project through IT colleges

STEP 2 Experienced workforce specialized in disaster platform

- Culture professional experience concerning disaster management, response system, technology and application program based on outstanding ICT infrastructure

STEP 3 Expansion of outstanding disaster management workforce and knowhow

- Workforce for operating disaster management system through continuous cooperation and exchange between local governments and dissemination of sustainable model

Preparation of integrated platform in the Central Vietnam through maximization of efficiency of cloud-based platform operation and standardization of disaster management service

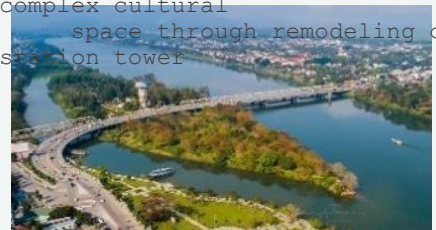
Smart City Valley Program in Central Viet Nam

Hue Smart city project

- Region where priority application and pilot operation of smart tourism technology is convenient for vitalization of culture and tourism in Hue
- Region that is frequently visited by tourists and citizens but requires environment improvement from the perspective of accessibility, safety and convenience
- Region where synergy with previously implemented project is expected while conforming to the superior

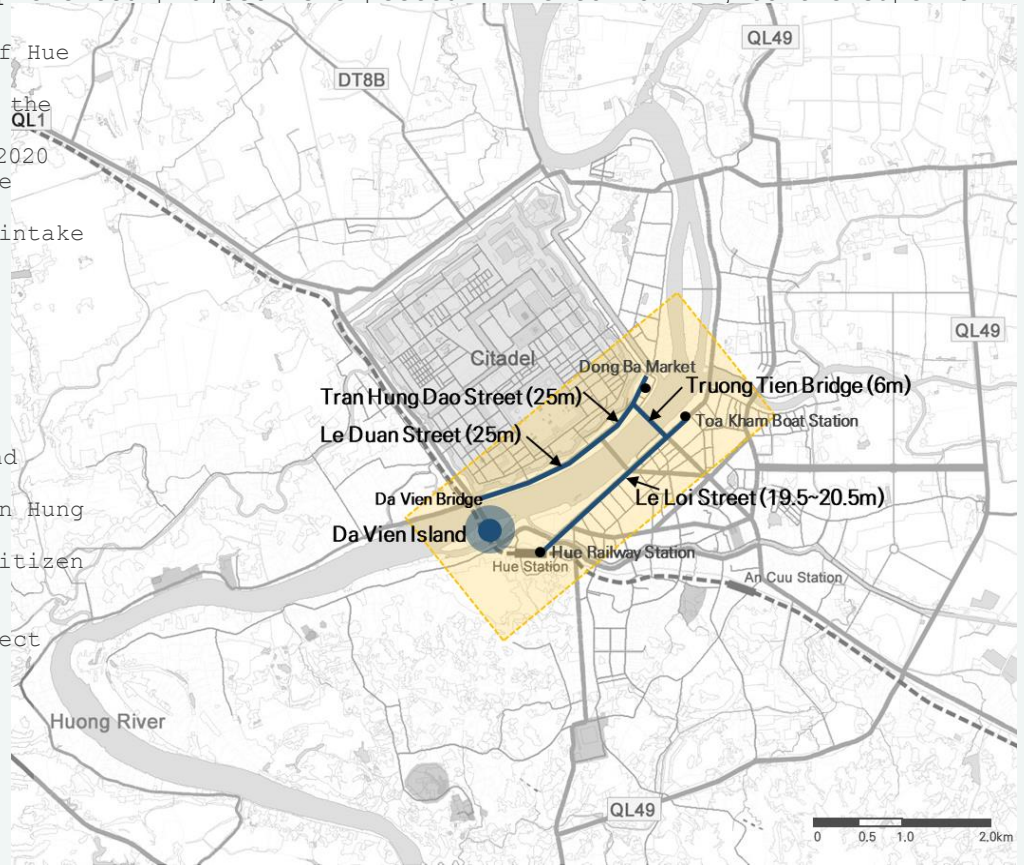
Smart culture and tourism hub

- Located in the western part of Hue city center
- Operation of intake station in the island expected to be suspended in 2020
- Convenient condition to create complex cultural space through remodeling of intake station tower



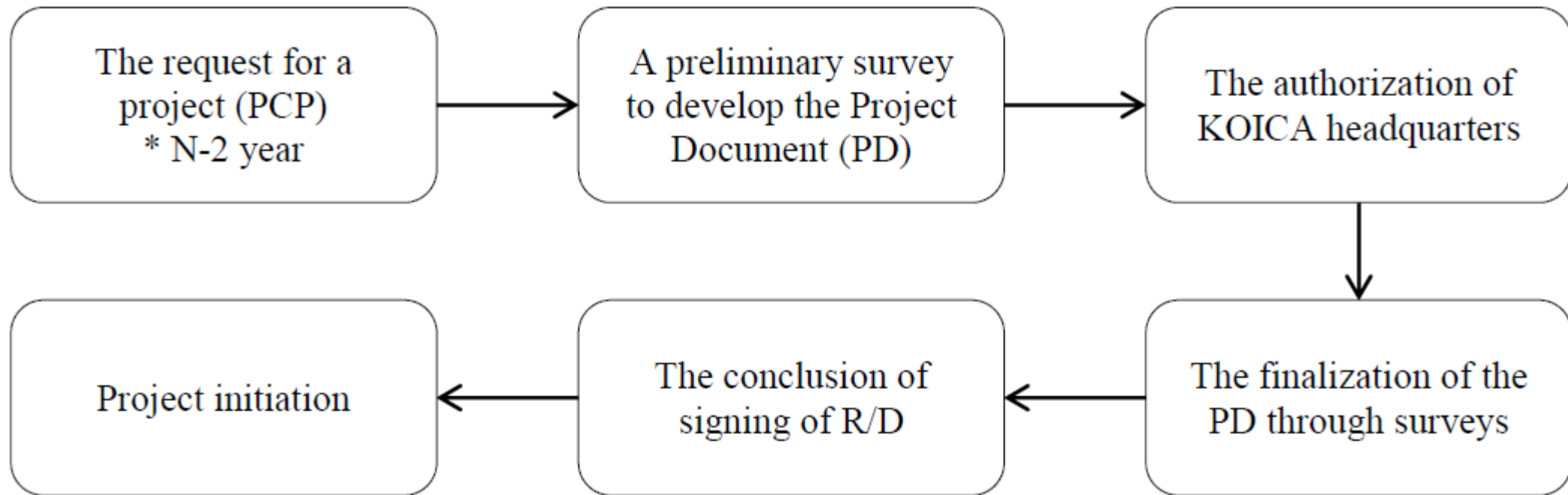
Pedestrian environment improvement project

- Huang River's riverfront road and waterfront park
- Le Loi Street, Le Duan and Tran Hung Dao Street
- Region with most tourist and citizen activities in Hue City
- Region where KOICA project (Pedestrian deck) and Hue project



Appendix. “Action Plan” to “Project”

Project Initiation Process



Appendix. Type of Interventions

Type of Interventions

Bilateral Project

- Bilateral projects refer to interventions designed to address problems through construction, equipment provision, capacity building, consulting, etc.
- Bilateral projects are conceived based upon an official request from the partner country.
- The Country Office is responsible for identifying new projects 2 years prior

Follow-up Bilateral Project

- Follow-up bilateral projects refer to projects designed to provide additional support to projects that already come to an end.
- Usually, a demand study for follow-up activities is carried out to decide whether a particular project requires complementary support.
- Follow-up bilateral projects can be

CSO Project

- CSO(Civil Society Organization) projects refer to projects co-funded by KOICA and a Korean NGO.
- NGOs propose a project that needs to be funded and NGOs implement the project.

IBS Project

- IBS(Inclusive Business Solution) projects refer to projects co-funded by KOICA and business partners.
- Businesses usually propose a project.
- In some cases, the Country Office makes a proposal.

Appendix. Type of Interventions

Type of Interventions

Multilateral Project

- Multilateral projects refer to projects that are funded by KOICA and implemented by an international organization.

CIAT Program

- It refers to Capacity Improvement and Advancement for Tomorrow, categorized into global, country-specific, and Master's Degree programs.

World Friends Korea

- World Friends Korea is the international volunteering program in which Korean volunteers are sent to host organizations to provide technical assistance.
- In order to receive volunteers, potential partners need to submit a demand survey form which should specify specific duties that need to be carried out by volunteers