K-City Network : Global cooperation Program 2021
Smart Solution Planning Project

K–City Network Solution Program Secretariat
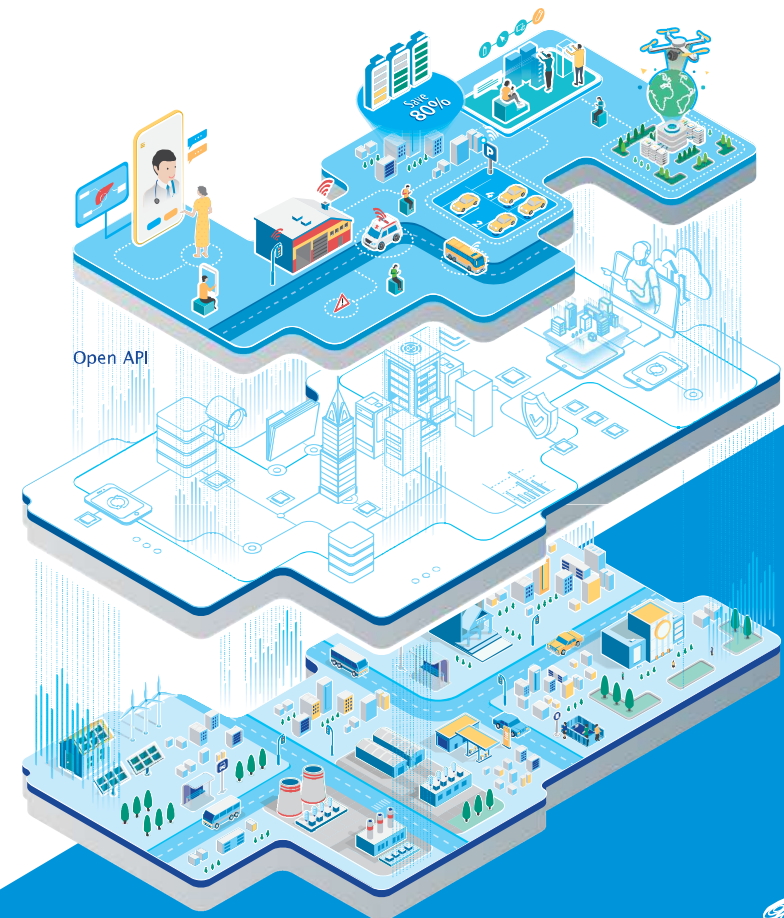Korea Agency for Infrastructure Technology
Advancement

Ministry of Land,
Infrastructure and Transport

KAIA
Korea Agency for
Infrastructure Technology
Advancement

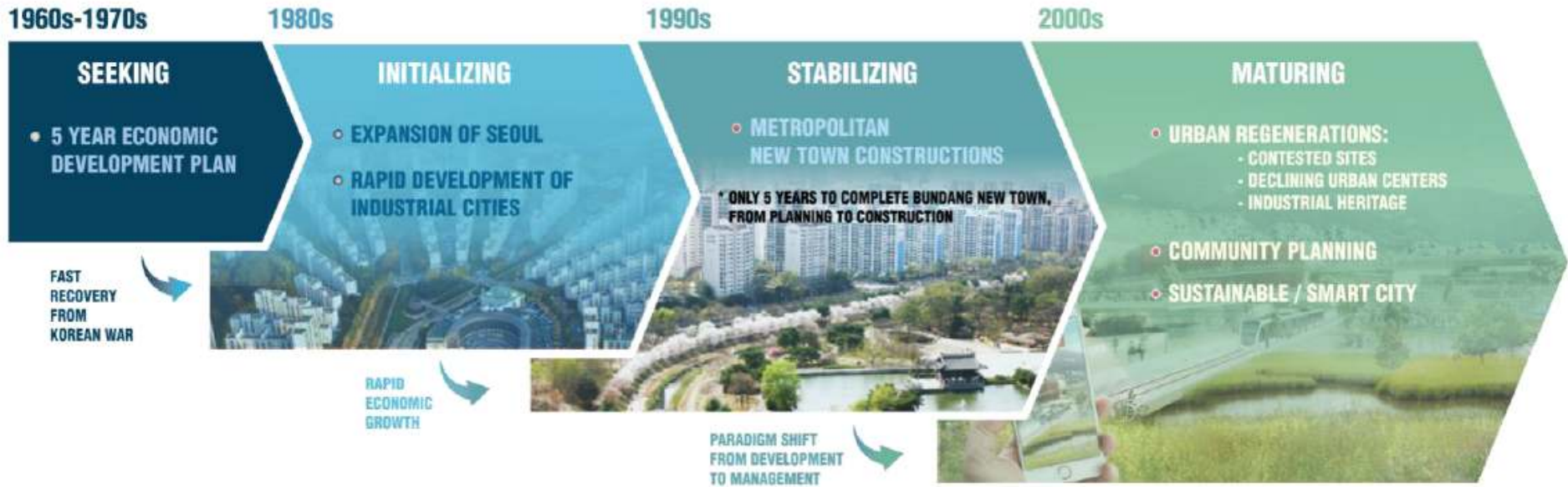# CONTENTS

Open API

DEAP CITY
스마트시티 혁신성장동력 프로젝트 사업단

I K-City Network : Global Cooperation Program 2021
Smart Solution Planning Project & Smart Solution Demonstration Project

K-City Network Overview

Smart Cities of Korea

Ministry of Land, Infrastructure and Transport

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1960s-1970s	1980s	1990s	2000s

SEEKING
- 5 YEAR ECONOMIC DEVELOPMENT PLAN

FAST RECOVERY FROM KOREAN WAR

INITIALIZING
- EXPANSION OF SEOUL
- RAPID DEVELOPMENT OF INDUSTRIAL CITIES

RAPID ECONOMIC GROWTH

STABILIZING
- METROPOLITAN NEW TOWN CONSTRUCTIONS
  * ONLY 5 YEARS TO COMPLETE BUNDANG NEW TOWN, FROM PLANNING TO CONSTRUCTION

PARADIGM SHIFT FROM DEVELOPMENT TO MANAGEMENT

MATURING
- URBAN REGENERATIONS:
  - CONTESTED SITES
  - DECLINING URBAN CENTERS
  - INDUSTRIAL HERITAGE
- COMMUNITY PLANNING
- SUSTAINABLE / SMART CITY

STAGES OF CITY DEVELOPMENT IN KOREA

CITY DEVELOPMENT IN KOREA PASSES INTO THE MATURITY STAGE

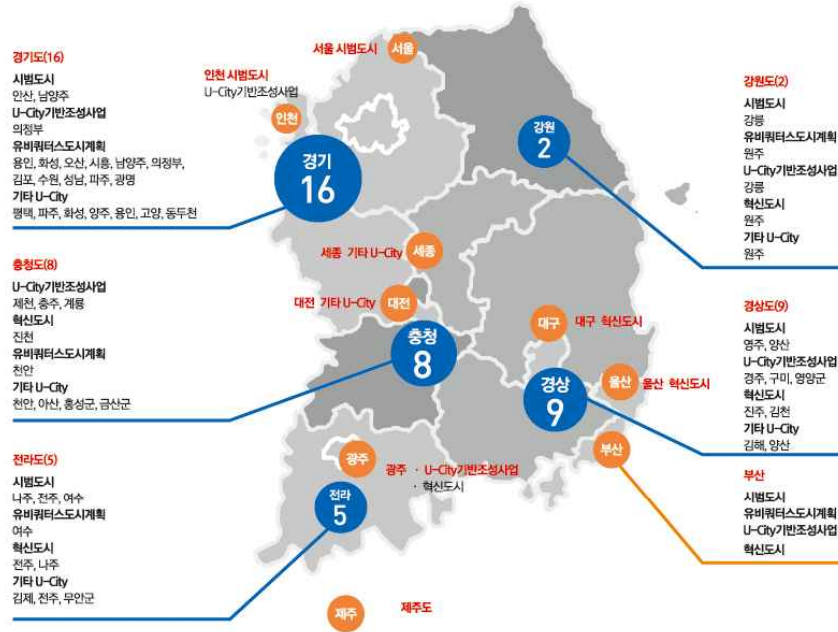KOREA HAS ACCUMULATED KNOWLEDGE ABOUT SOLUTIONS TO RELEVANT URBAN ISSUES FOR BOTH MATURED CITIES &NEW CITIES

U-City (Ubiquitous)

U-eco City (Ubiquitous+Ecological)

K-Smart City

· A city where ubiquitous services are provided through city infrastructure using ubiquitous city technologies

· A city that promises to provide an environment-friendly urban milieu with advanced ubiquitous infrastructures and services for residents and visitors

· A customized city based on the convergence of ICT (Information and Communication Technology) with city development & management

Smart Cities of Korea

Ministry of Land, Infrastructure and Transport

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For new cities, ubiquitous city solutions have been adopted since 2004. Smart grid technology and IoT service solutions were experimented in several sites

Ubiquitous City

경기도(16)
시범도시
안산, 남양주
U-City기반조성사업
의정부
유비쿼터스도시계획
용인, 화성, 오산, 시흥, 남양주, 의정부,
김포, 수원, 성남, 파주, 광명
기타 U-City
평택, 파주, 화성, 양주, 용인, 고양, 동두천

충청도(8)
U-City기반조성사업
제천, 충주, 계룡
혁신도시
진천
유비쿼터스도시계획
천안
기타 U-City
천안, 아산, 홍성군, 금산군

전라도(5)
시범도시
나주, 전주, 여수
유비쿼터스도시계획
여수
혁신도시
전주, 나주
기타 U-City
김제, 전주, 무안군

서울 시범도시 서울
인천 시범도시
U-City기반조성사업 인천

강원도(2)
시범도시
강릉
유비쿼터스도시계획
원주
U-City기반조성사업
강릉
혁신도시
원주
기타 U-City
원주

세종 기타 U-City 세종
대전 기타 U-City 대전

대구 대구 혁신도시

경상도(9)
시범도시
영주, 양산
U-City기반조성사업
경주, 구미, 영양군
혁신도시
진주, 김천
기타 U-City
김해, 양산

울산 울산 혁신도시

부산
시범도시
유비쿼터스도시계획
U-City기반조성사업
혁신도시

광주 · U-City기반조성사업 · 혁신도시

제주 제주도

*국토교통부, 행정자치부 등 U-City 사업을 추진 또는 계획 중인 지자체는 총 73개 도시로 파악됨 (13.8월 기준)

사업명	수행기간	담당부처	지자체수
U-시범도시사업	09~13	국토교통부	15
혁신도시사업	07~	국토교통부, 행정자치부	11
U-City 계획	~15	국토교통부	25
기반조성사업	05~09	행정자치부	10
기타	~12	국토교통부, 행정자치부, 산업통상 자원부	14

Smart City

IoT TestBed

What is K-City Network?

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KAIA

K-City Network is a global cooperation program that offers packaged support, including **identification and development** of a **Korean smart city project** and **technology transfer for cities overseas,** on the basis of **inter-governmental cooperation.**
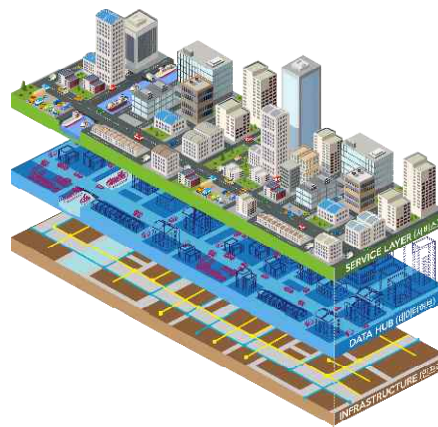
1 Definition of Smart City Solution

Smart solutions refer to **technologies to provide services and related platforms or systems** in the areas of **transportation, energy, environment, security, urban administration, etc.**

Service

Applications designed for the benefit of citizen convenience and administrative efficiency (e.g. smart parking services)

Platform

Combination of the **software** to collect, store and transfer data with the server to deal with such process (e.g. video monitoring platform)
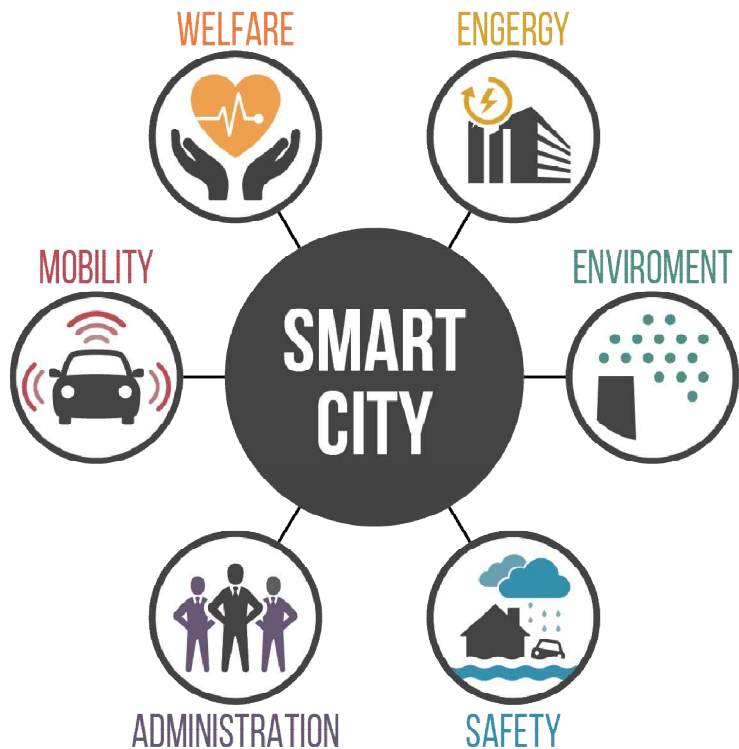

System

A set of **various sensors, devices and physical infrastructure** installed on the basis of data platform to carry out specific functions (e.g. transportation card system)
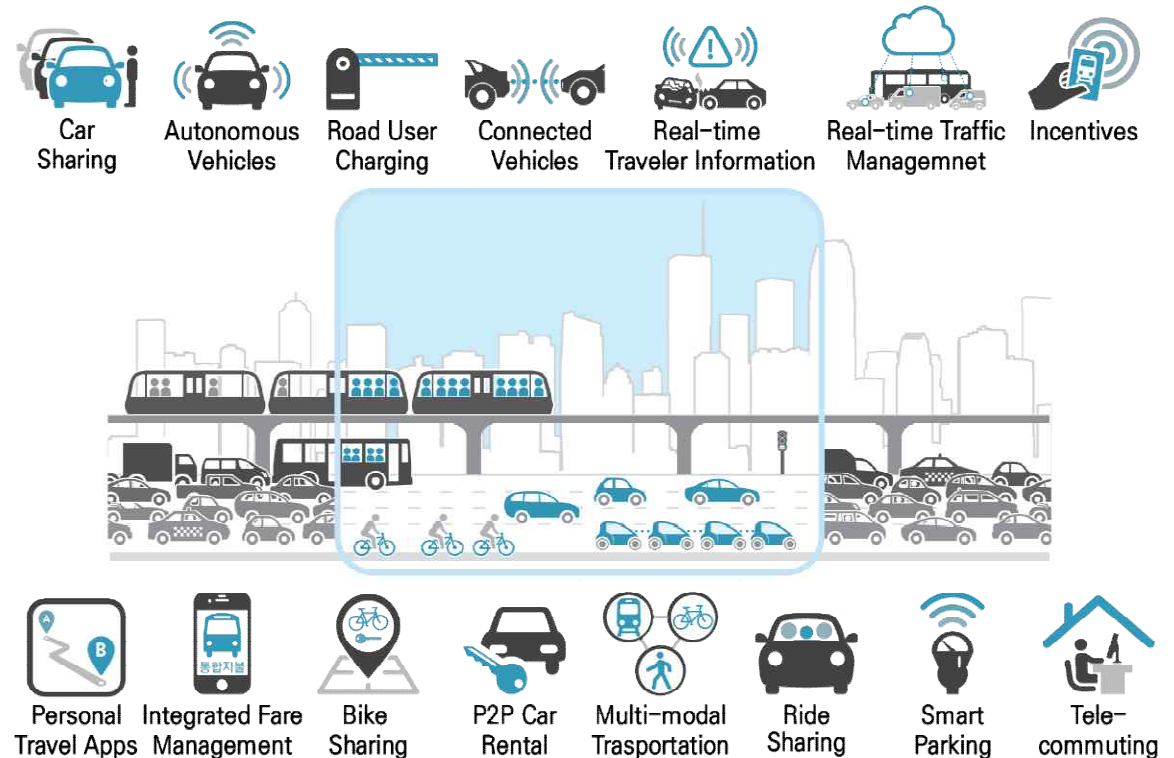
1 Definition of Smart City Solution

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Solution Program formulates a plan to develop and operate a **standalone or packaged solution** to address **urban issues** in fields such as **transportation, energy, and the environment in cities overseas.**

Smart City Domains

WELFARE
ENGERGY
MOBILITY
SMART CITY
ENVIROMENT
ADMINISTRATION
SAFETY

Examples of Smart City Solutions

Car Sharing | Autonomous Vehicles | Road User Charging | Connected Vehicles | Real-time Traveler Information | Real-time Traffic Managemnet | Incentives

Personal Travel Apps | Integrated Fare Management | Bike Sharing | P2P Car Rental | Multi-modal Trasportation | Ride Sharing | Smart Parking | Tele-commuting
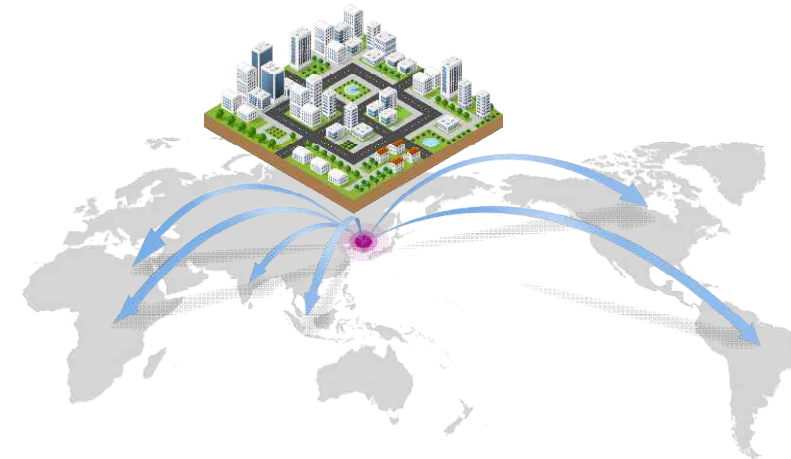
K-City Network : Solution Program

K-City Network : Solution Program is intended to share smart city experiences with cities outside Korea willing to adopt Korean-style smart city development and **support outstanding smart city solutions** developed by Korean businesses to access international markets

Solution Planning Project

Analysis of project conditions of the candidate city, **recommending suitable solutions**, reviewing project details, and considering **feasibility for project implementation**
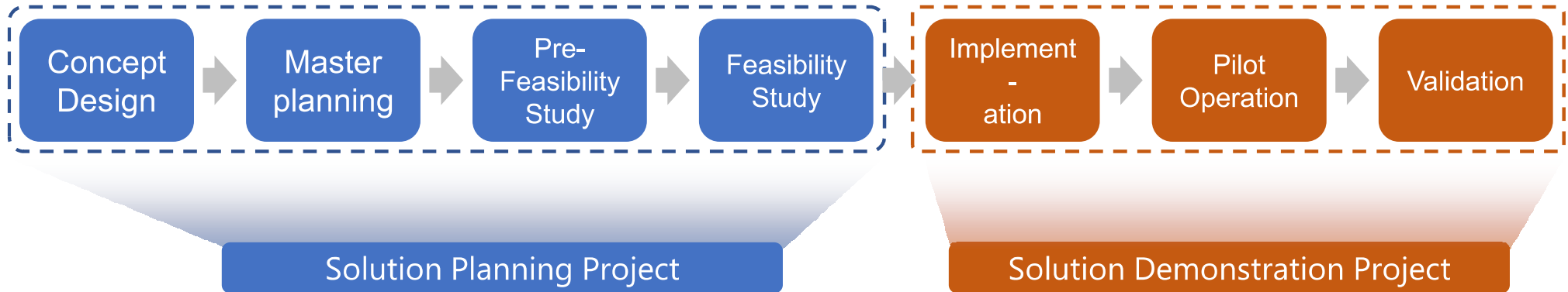
Solution Demonstration Project

Smart city technologies which has already proven its effectiveness or been commercialized in and outside Korea will be **implemented and demonstrated** in oversea cities.

1 K-City Network : Solution Program

Ministry of Land, Infrastructure and Transport

KAIA

Process of Smart City Projects

| Concept Design | → | Master planning | → | Pre-Feasibility Study | → | Feasibility Study | → | Implement-ation | → | Pilot Operation | → | Validation |

Solution Planning Project

Solution Demonstration Project

	Solution Planning Project	Solution Demonstration Project
Target Projects	smart city solutions projects (services, platforms, or systems)	Oversea demonstration project of domestically commercialized smart city solutions
Applicants	Central governments and local authorities overseas	Korean organizations and businesses (must include an international partner in the consortium)
Scale of Support	Approximately KRW 200 – 300 mil. per project / For up to 4 projects	Approximately KRW 400 – 600 mil. per project / For up to 3 projects
Project Period	Up to 10 months	Up to 11 months

II

K-City Network : Global Cooperation Program 2021
Smart Solution Planning Project & Smart Solution Demonstration Project

Smart Solution Planning Project

2 Solution Planning Project

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What is Solution Planning?

This project supports planning to develop and apply Korean smart city solutions for smart city projects that are to be considered or carried out by foreign governments.

What are the main Goals?

I **identify smart city cooperation projects** in order to develop a concrete plan for urban problem solutions

II **share and disseminate each other's best technologies** and practices among partner countries for mutual benefits and prosperity

Who can apply?

Cities overseas that need planning to **deploy Korean smart city solutions** or are interested in adopting and demonstrating smart city solutions developed in Korea.

➔ Departments, agencies and public bodies of central, federal and local government

2 Solution Planning Project

Target Projects

Smart city project of the candidate country, which aspires to learn from **Korea's smart city experiences and deploy smart solutions to solve urban problems**

❌ Simple infrastructure development projects or R&D projects

✅ has a comprehensive plan as to smart city solutions
(e.g. concept design, master plan, feasibility study etc.)

✅ has a secured budget

✅ May link the proposed project with another smart city collaboration project being or to be implemented in partnership with a Korean public institution or corporation.

2 Past Projects of 2020 - Transport Management Systems (Bogota - Columbia)

- ## Location
  Bogota-Guarduas Expressway (119km) and Traffic control center

- ## Project concept
  Feasibility study on constructing traffic control center and traffic management facilities on arterial roads as a pilot model of national Intelligent Transport Systems(ITS) project

- ## Scale of support // Project period
  288 million KRW // from 15/Jul/2020 to 21/Jan/ 2021 (5 months)

- ## Partner country
  The Ministry of transportation of Columbia

2 Past Projects of 2020 - Integrated Management Center (Gaziantep - Turkey)
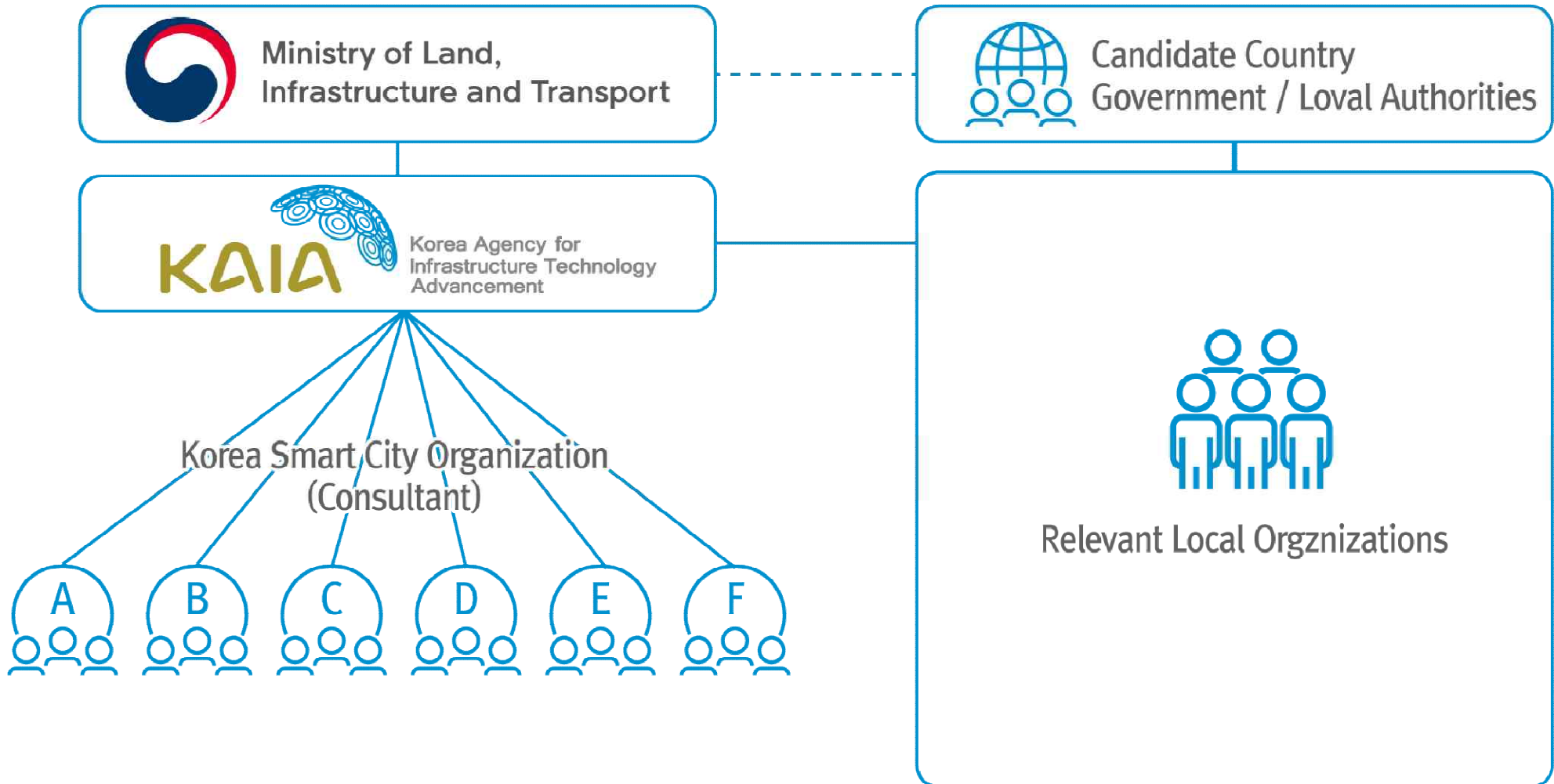
- **Location**
  Renovated science museum in Gaziantep located in southeastern Turkey

- **Project concept**
  To integrate and operate existing decentralized city management centers, devise a smart service related action project and plan of integrated management center platform

- **Scale of support / Project period**
  286 million KRW / from 15July to 21Dec 2020 (5 months)

- **Partner country**
  Information Technology department of Gaziantep City

2 Implementation Structure

How is this project organized?

Project Details

Scale of Support

Up to 300 million KRW (300,000 USD) per project,
for up to **4 cities overseas**

Description of Support

Project Planning assistance to develop smart city solutions(services, platforms, or systems) of the candidate city, which aims to tackle critical urban problems in fields such as transportation, environment etc.

- Based on the status and condition analysis of the city, a smart solution will be presented to resolve major urban issues, and a feasibility study will be supported

Follow-up Support

According to the result of feasibility study, **projects with high potential and feasibility will be granted incentives** when applicant applies for a smart city solution demonstration project next year

2 How to Apply

Deadline

The applications must be submitted to the K-City Network Solution Program Secretariat (Korea Agency for Infrastructure Technology Advancement ("KAIA") before **6 p.m. April 20, 2021 (Tuesday), KST** via electronic documents sent over **e-mail**

Contacts

e-mail : kcitysolution@kaia.re.kr
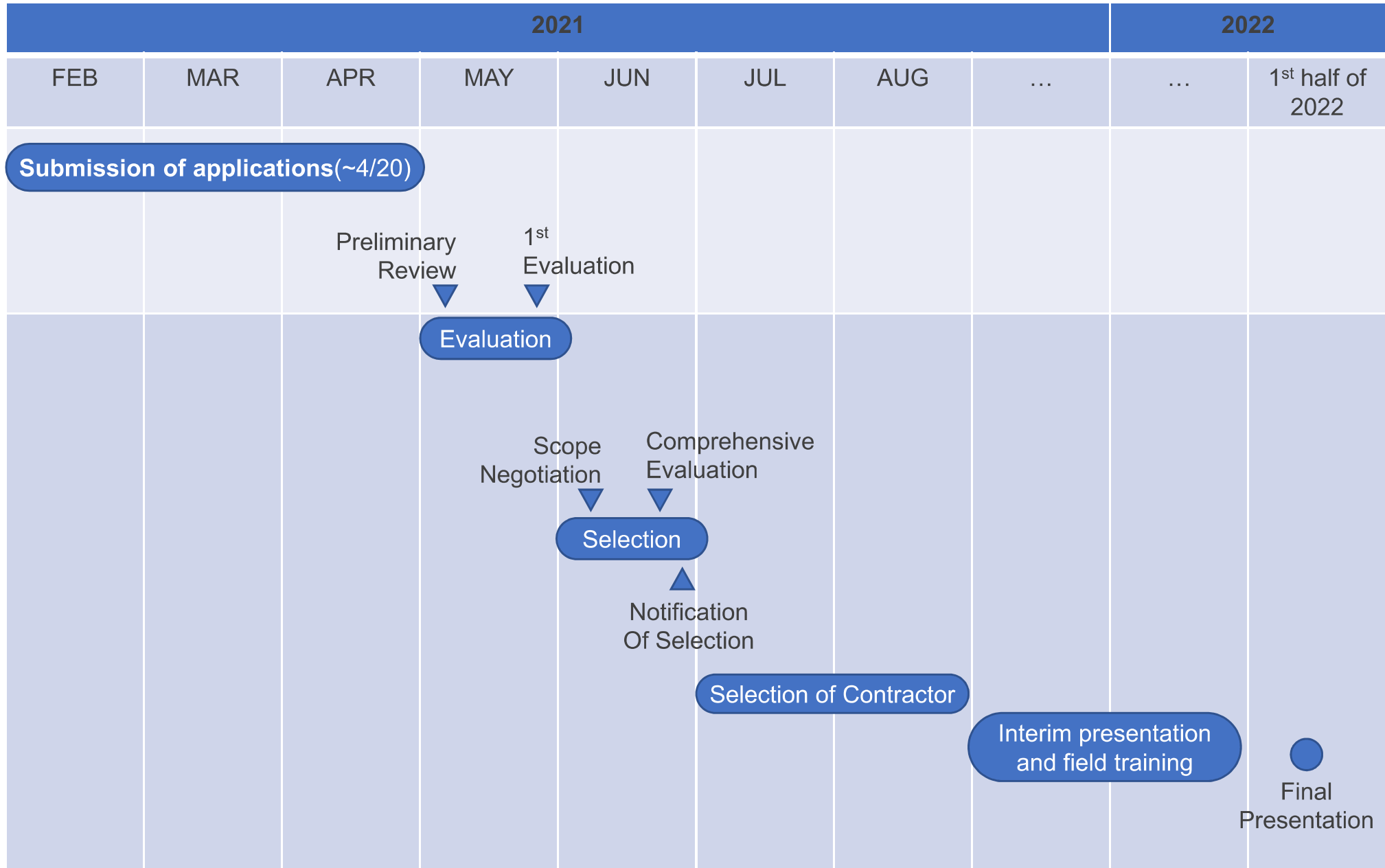Phone : +82-02-798-9725

Required Documents

Required documents below shall be submitted on or before the deadline.

- ✓ The Application (signed or sealed by the head of the organization)
- ✓ The Proposal
- ✓ Collaboration Commitment among Relevant Organizations
- ✓ The Consent to the Relevant Information Sharing and Cooperation
- ✓ Document Checklist

Application & Evaluation Process

2021									2022
FEB	MAR	APR	MAY	JUN	JUL	AUG	…	…	1st half of 2022

Submission of applications(~4/20)

Preliminary Review ▼

1st Evaluation ▼

Evaluation

Scope Negotiation ▼

Comprehensive Evaluation ▼

Selection

▲ Notification Of Selection

Selection of Contractor

Interim presentation and field training

● Final Presentation

Guide for Applicants - Project proposal contents

1. Solution Planning Project Overview

1.1 Project name

1.2 Project overview

1.3 Areas of cooperation with the country for the project

1.4 Relevant department/agency of the country

2. Need for and Feasibility of the Project

2.1 Smart city-related policy or implementation strategy

2.2 Current state and major issues of the candidate city

2.3 Background and need for the project

2.4 Related smart technologies and infrastructure deployed in the city

2.5 Goals and implementation strategy of the project

3. K-City Network Application Overview

3.1 Type of smart solution

3.2 Application field and the scope of work

3.3 Measures for cooperation with Korea to

demonstrate the solution and requests to be made to Korea

4. Smart solution development plan

4.1. Estimated project budget

4.2. Project implementation structure

4.3. Funding plan including private funds for solution demonstration down the road

4.4. Target site selection for the solution project

4.5. Timeline going forward

5. Others

5.1. Relevant Korean government department and partner organization (corporation)

- The proposal shall be up to <u>30</u> pages(summary up to 2 pages)

- Recommended to write in <u>English</u>

2 Guide for Applicants - Tell us about your city

- **What is Smart city−related policy or implementation strategy of the city?**
  - smart city-related policy or national implementation plan of the country

- **What is Smart solution development plan of the city?**
  - Project plan to be implemented after or in connection with the K-City Network Program.
  - Funding plan including private funds for solution demonstration down the road

- **Why the smart solution of Korea are needed?**
  - The need, rationale, and urgency for a smart city solution project.
  - The need for cooperation with the Korean government

2 FAQ

Q1 Is there a limit on the number of project proposals for each country?

A1 There is no limit on the number of applications by country, but the evaluation process will be conducted in consideration of equity in case of excessive application.

Q2 Are project expenses distributed directly to overseas country/organization?

A2 The project expenses will be distributeddirectly to the project consultant,and the budget allocated for international organization will be given through the consultant.

Q3 We are already working on a project with consultant in Korea. Is it possible for the consultant we are working with to be selected through the bid process?

A3 Contractors will be selected basically through the open competitive bid process. We are working on preparing the evaluation criteria and scope of work for contractors to be selected, which will be notified later.

Thank you

K-City Network Solution Program Secretariat
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