

# Data Collection for Census in Korea

## Data Sources and Collection Methods



2 April 2019



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# I. Overview of the Census in Korea

1. Overview of 2015 Census

2. Overview of 2020 Census

# 1. Overview of 2015 Census



## Population Census

First round in 1925, 2015: 19<sup>th</sup> round



## Housing Census

First round in 1960, 2015: 11<sup>th</sup> round



## Legal Authority

A designated statistics under Statistics Act Article 17(1)  
Rules on Population and Housing Census (Ministry No. 173)



## Periodicity

Taking the Combined Census every 5 year since 2015



## Reference Date and Time

0:00am of November 1<sup>st</sup>



## Coverage

All Koreans/foreigners sojourning within territory of Korea  
All living quarters within territory of Korea



## Method

- 1<sup>st</sup> Register-based Census(13 items for all households)
- Field Survey (53 items for 20% households) : On-line(PC), enumerator(PAPI, PASI)



## Result

- Population(51 mil.), Household(19 mil.), Housing(16 mil.)

# Drivers for Modernization and Innovation

## 2. Overview of 2020 Census

- Higher labor cost but cheaper technology cost
  - Daily pay of enumerators will be from 42 US \$ in 2015 up to 62 in 2020
- Difficult to interview
  - Increased single households and working families
  - Increased apartment buildings with strict security systems
  - Increased awareness on Privacy Protection
- Difficult to manage field enumerations effectively
  - What happens in the field relies mostly on enumerators
  - Possible to get duplicated responses of the same household
- Using administrative data of other agency by Statistics Act since 2008



## II . Combined Census in Korea

1. Introducing the Combined Census in 2015
2. Increased Items of Register-based Census

# 1. Introducing the Combined Census in 2015

- Determine the design based on availability and accessibility of administrative data



- Collect data on basic items (13 items including age, gender, household characteristics) on all Koreans (every year)  
(Data can be compiled using 25 sets of administrative data such as resident register, building register, family relations register from 14 agencies)

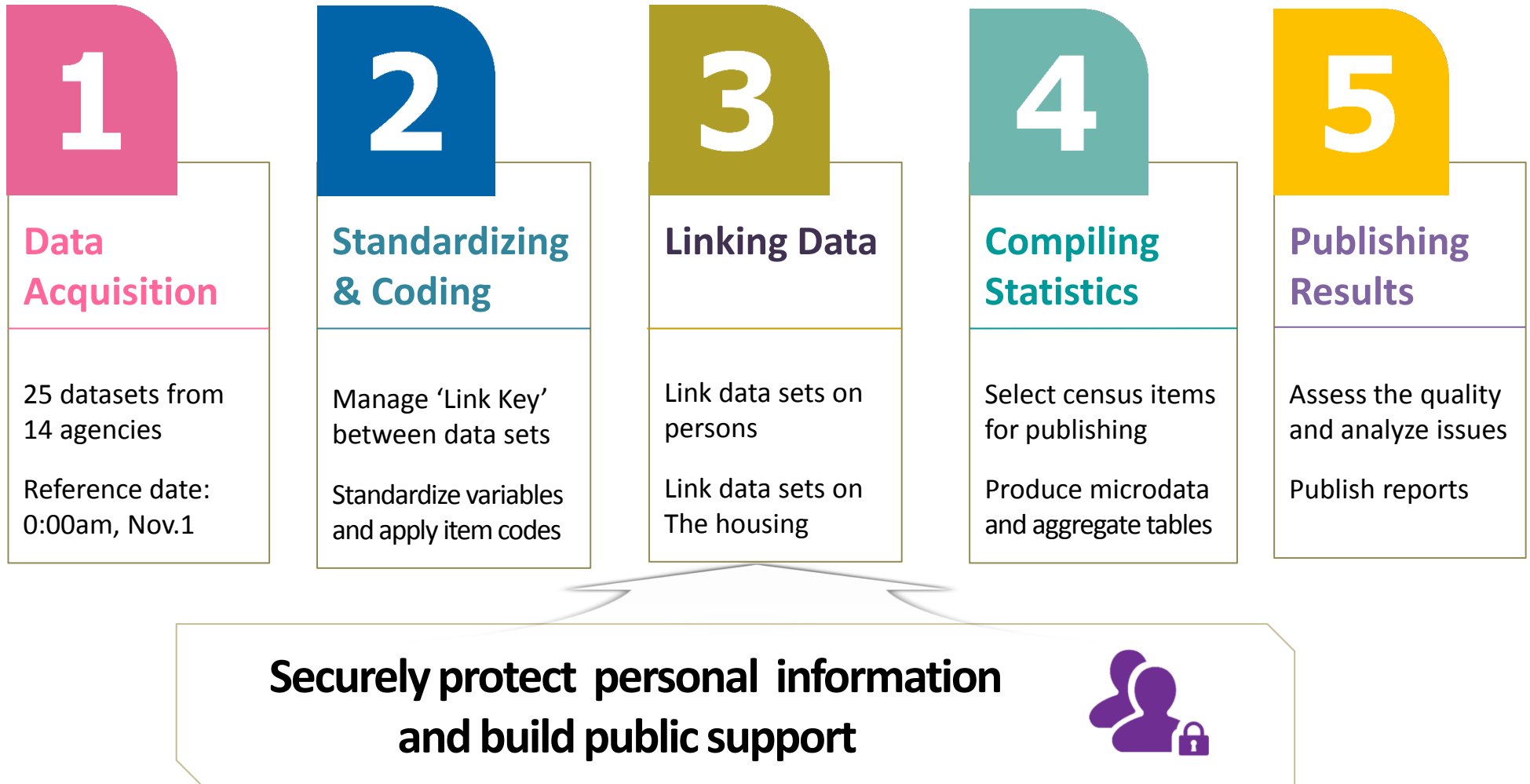


- Collect data on 52 items difficult to complete using administrative data (i.e. educational attainment, activity constraints, career discontinuity) through field survey (every 5 years)



# Production Process of Register-based Census

## 1. Introducing the Combined Census in 2015





# Data Acquisition

## 1. Introducing the Combined Census in 2015

- 25 sets of administrative data for register-based census were obtained from 14 agencies

14 agencies	Administrative data(25 sets)
1. Ministry of Government Administration and Home Affairs	Resident Registration Register, Street name address (national basic districts) data
2. Ministry of Justice	Foreign register, Register of Korean Nationals residing abroad, Domestic residence register of foreign national Korean, Register of undocumented(short stay) immigrant, Entry and departure register, Nationality acquisition register, Reformatory inmate register, Juvenile correctional facility register
3. Supreme Court of Korea	Register of family relations
4. Ministry of health and welfare	Social facility register
5. Ministry of National Defense	Army register
6. Ministry of Foreign Affairs & Trade	Register of government officer expatriate
7. National Police Agency	Register of conscripted policemen
8. Ministry of Public Safety & Security	Register of conscripted coast guards, Register of conscripted firefighters
9. Korea Electric Power Corporation	Electric facility (for housing) data
10. Ministry of Land, Infrastructure & Transport	Housing register of buildings and dwellings, Publicly announced housing price data
11. Ministry of Education	College register, Register of college dormitory users
12. Korea Employment Information Service	Employment insurance data of the insured
13. National Pension Service	Register of the insured in workplace
14. National Health Insurance Service	List of convalescent hospital users

# Standardizing, Coding & Linking

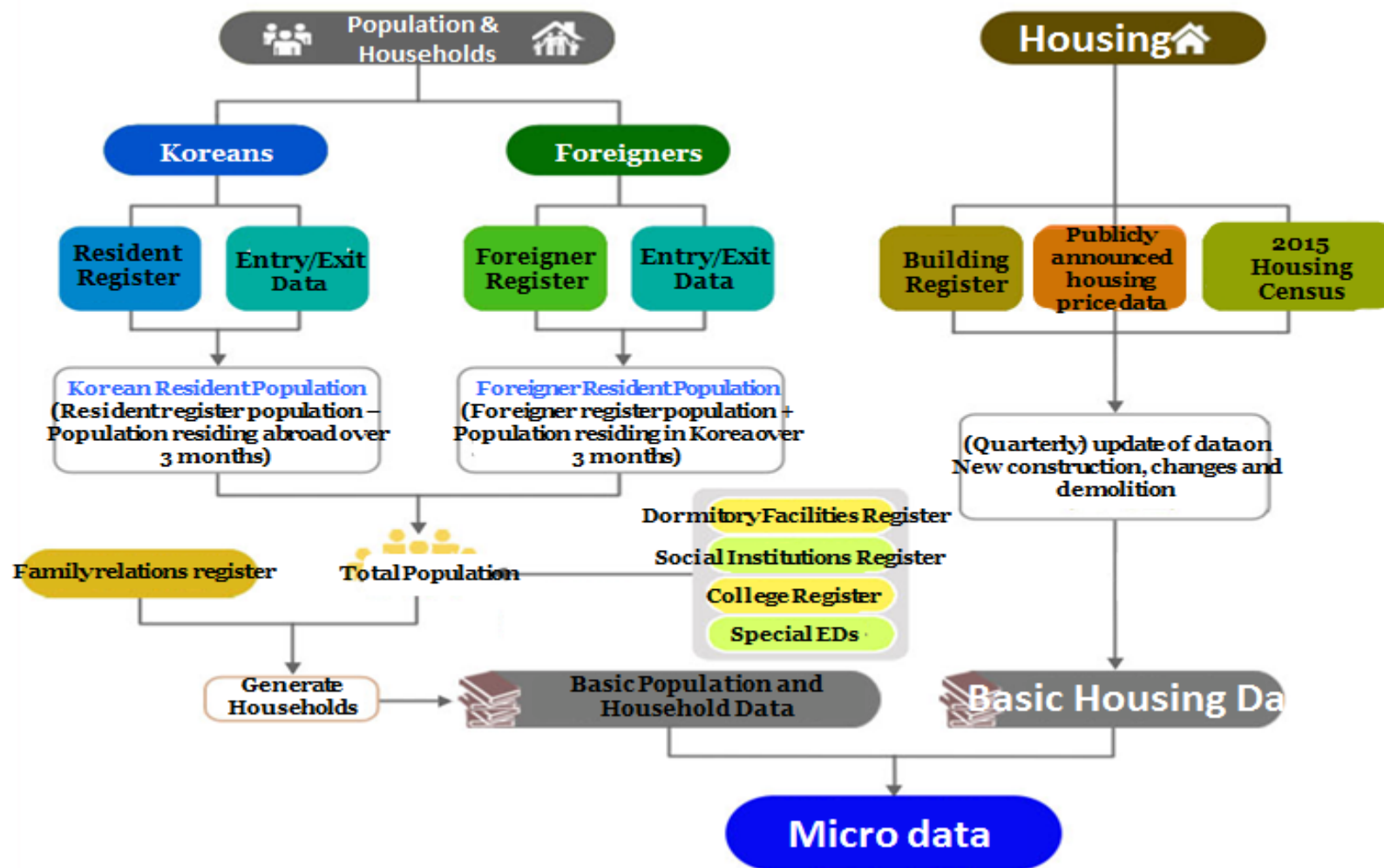
## 1. Introducing the Combined Census in 2015

- Standardize and manage variables from different administrative data sets and secure link key (ID no. or address)
  - Standardization: new address (administrative codes, street name codes, underground status, main and sub-lot number of a building), old address (main and sub lot number), land category, building name, floor, building no., unit no.
  - Coding: administrative code, gender, age, type of residence, years in current residence, etc.

Standardizing & Coding	Administrative Data
Address standardizing	resident register, building register, institutional facilities register, public record of property price, etc. (10)
Gender coding	resident register, family relations register, foreigner registrations, school register (4)

# Compiling Statistics from Data

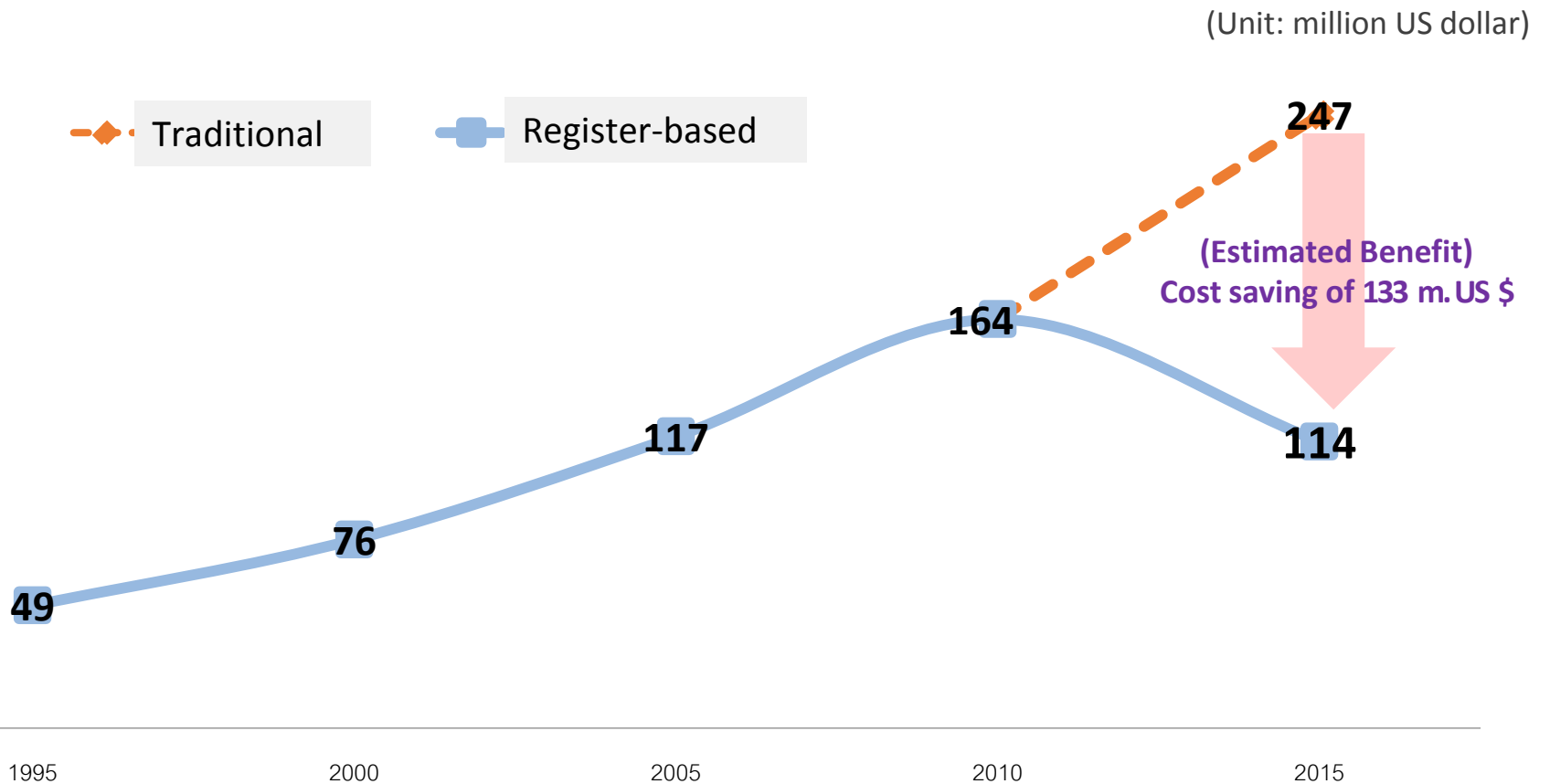
## 1. Introducing the Combined Census in 2015



# Advantages of Register-based Census

1. Introducing the Combined Census in 2015

## ■ Cost Reduction



# Advantages of Register-based Census

## 1. Introducing the Combined Census in 2015

- Quality Enhancement
  - No duplicates & omissions of individuals' record
- Census-taking every year
  - Providing statistics on population, households & housing and therefore improving timeliness of sampling frame
- Offering new statistics to support policy planning
  - Difficult to get data from field survey but easy to compile from administrative source

(ex. Multicultural Households Statistics, Single Parent Statistics, One-parent Household Statistics, Household by Number of children Statistics, Household with Infant and Young Children Statistics )



## **III. Innovation for the Data Collection**

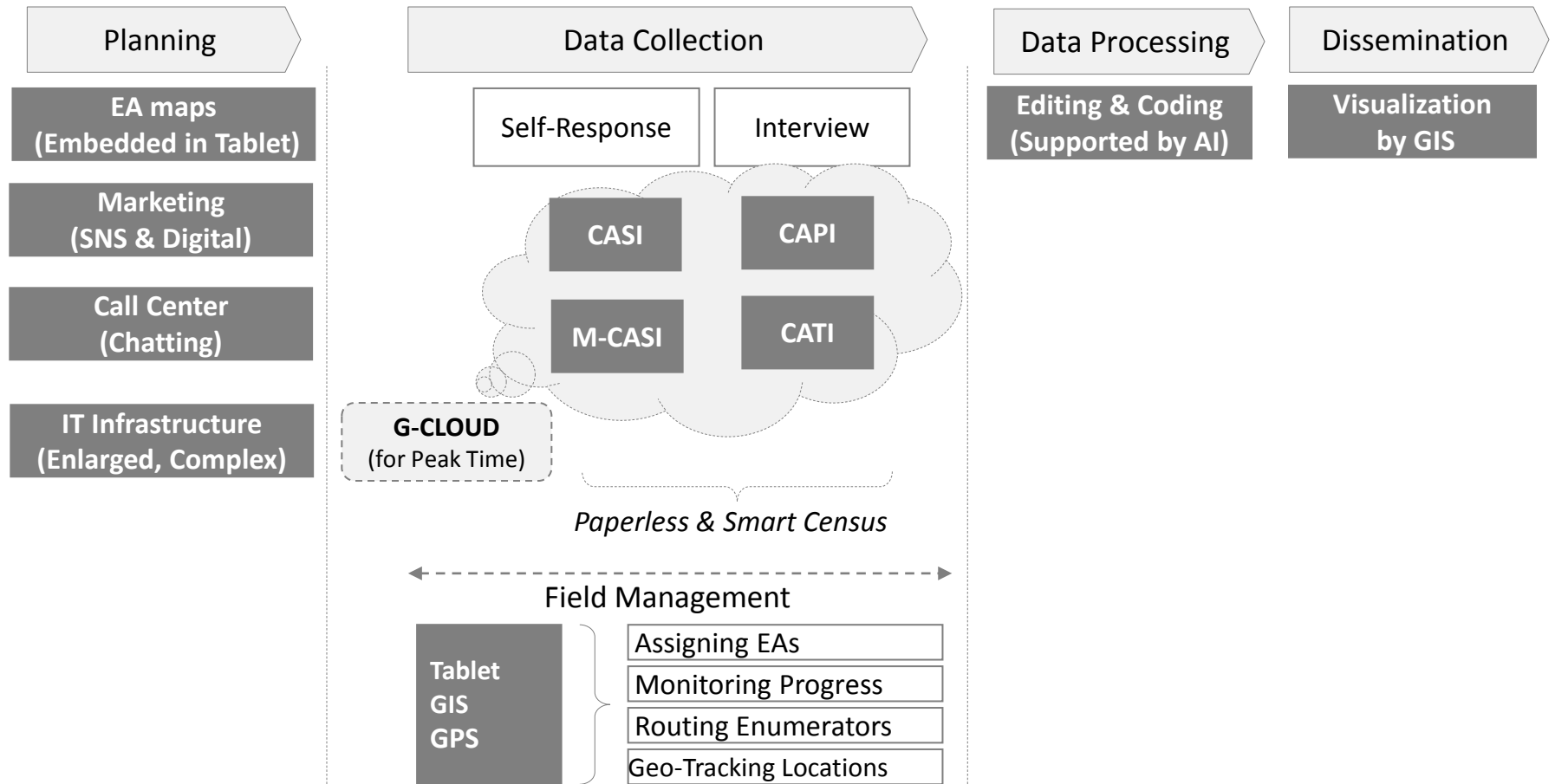
1.Improved Address Canvassing in 2019

2. Internet Survey

3.Schedule of the 2020 Census

# Digitalization of All Census Processes

## 1. IT-based Paperless Census in 2020



# Feature of Management Information System

## 1. IT-based Paperless Census in 2020

- Reducing workload and increasing efficiency by various supporting services
  - Print and use various templates from the system. etc.
- Developing an integrated management system for incorporating unit processes such as Field staff Recruitment, Portal, Internet data collection, Field Management, Online training, GIS, etc.
- Enhancement of user convenience by producing a video manual for the key menus
- Operation in connection with external systems, such as SMS-sending system and call center consultation system

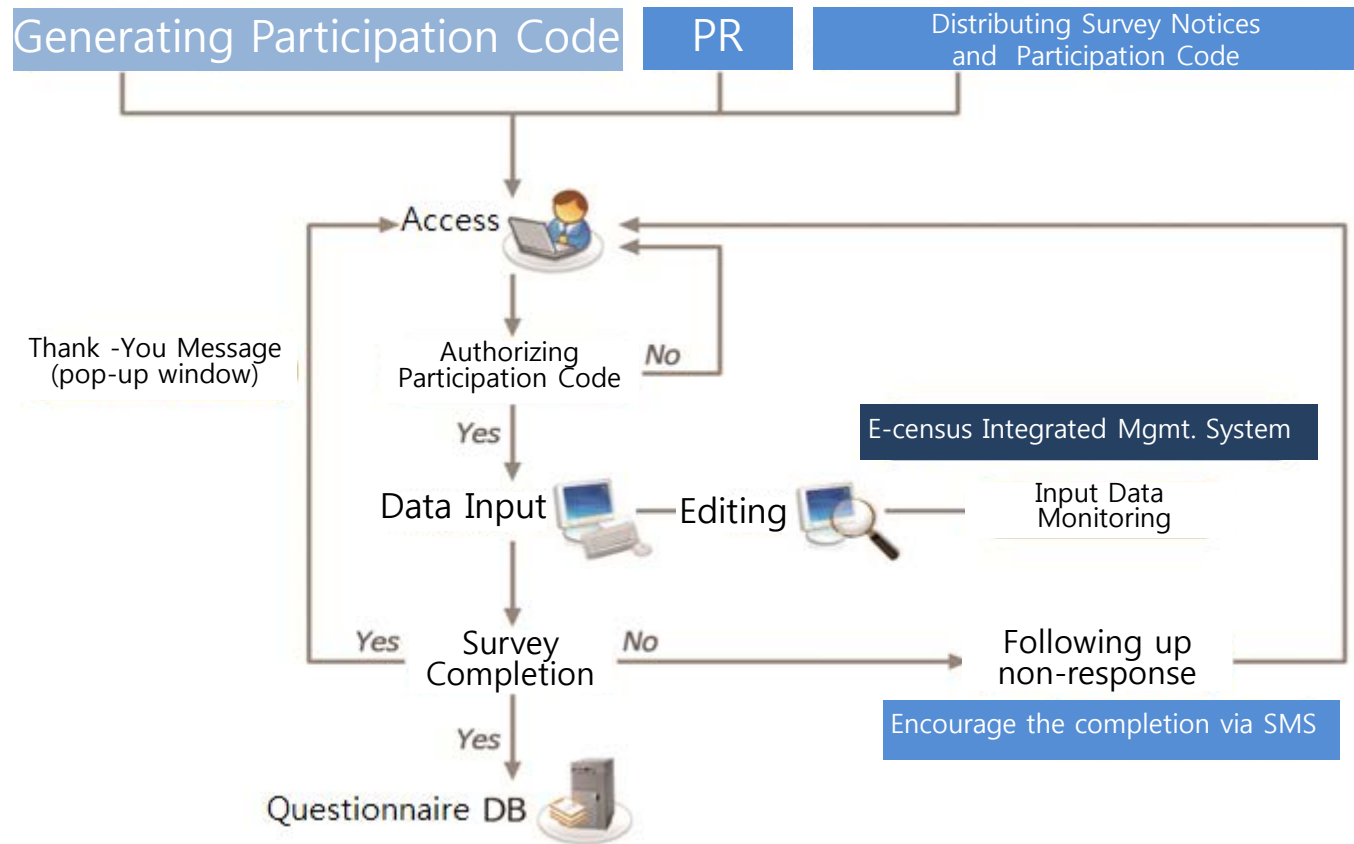


## 2. Improved Address Canvassing in 2019

- Updating Housing Register based on Administrative data
  - Significantly reduced interviews of households
  - Added items for completing Register-based Census
- Using mobile devices for data collection
  - Support field staffs by digital enumeration area maps(GIS) built on mobile devices
  - Monitor real-time progress of the enumeration(GPS)

# Workflow of Online Data Collection

## 3. Internet Survey



# Internet Survey Management System

## 3. Internet Survey

- Monitoring to prevent duplicates and omissions
- Managing the information about the participating households
- Tracking an incomplete participation in a survey and sending out SMS reminder

### Internet Survey Management System

- Aggregates of participating households
- Responses
- Participants Management
- Account Management
- Creation of Participation No.
- Look-up a Participation No.
- Tools to Manage Incomplete Surveys
- Monitoring Incomplete Surveys
- Information on the Participating Households
- Data Transfer outside the Administrative District
- Duplication
- Auxiliary Info.

도로명주소

공동주택명

지번주소

시도선택
대전광역시:25

시군구선택
서구:030

법정동리

공동주택명
샘머리

동
104

호
102

총 1 건
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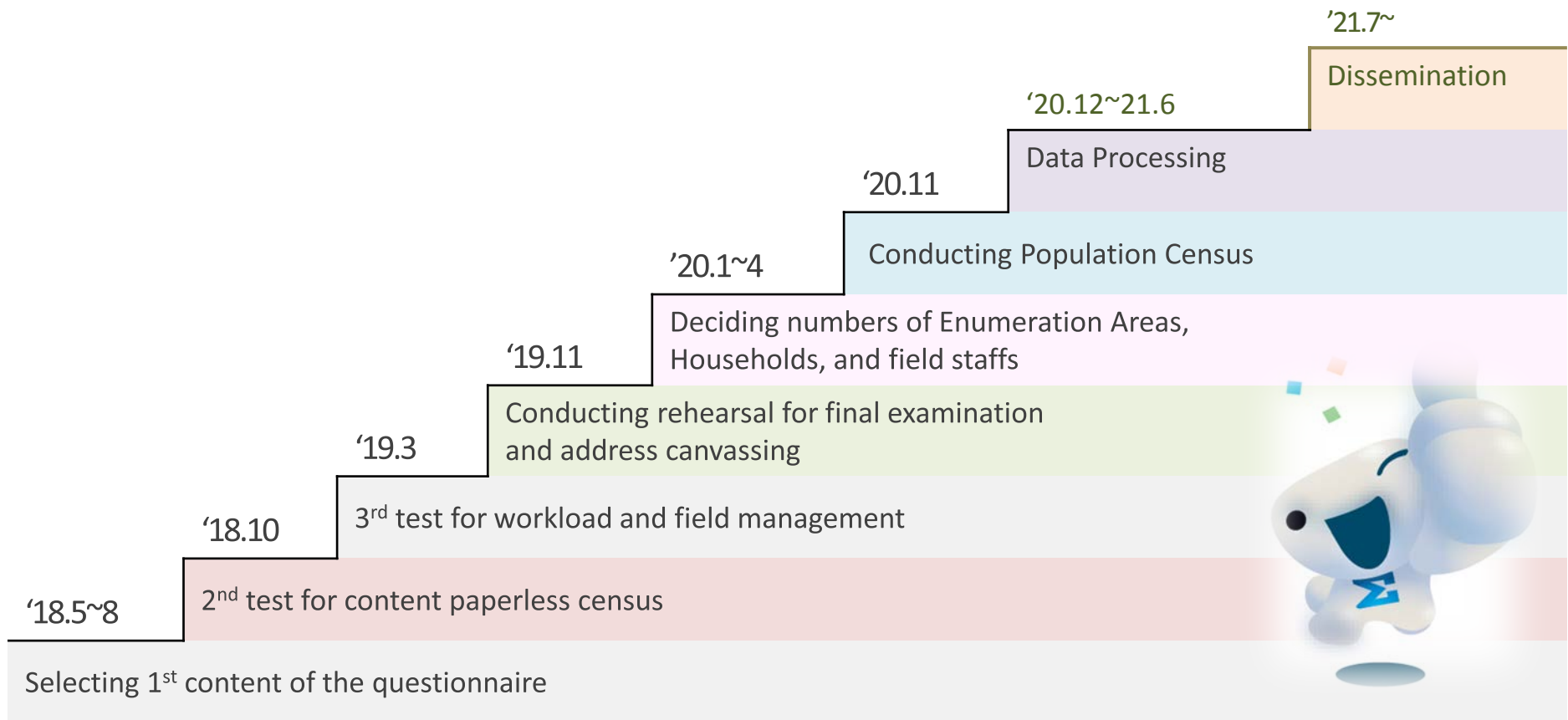
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GIS조회

다가구참여번호안내

저장

### 3. Schedule of the 2020 Census



# Digitalization of Demographic Data

## Data Creation

'Link Key' / Variables Standardizing  
Accurate and abundant Information  
Survey Process

## Data Linking

Link data sets on persons/household  
Manage 'Link Key' b/w data sets  
Repair Regulation System

## Data Release

User-Oriented Format  
Personal Information Protection  
International Comparison



**Digitalization in All Process**

# Thank You!