

# Response to COVID-19 with ICT

April 28, 2020

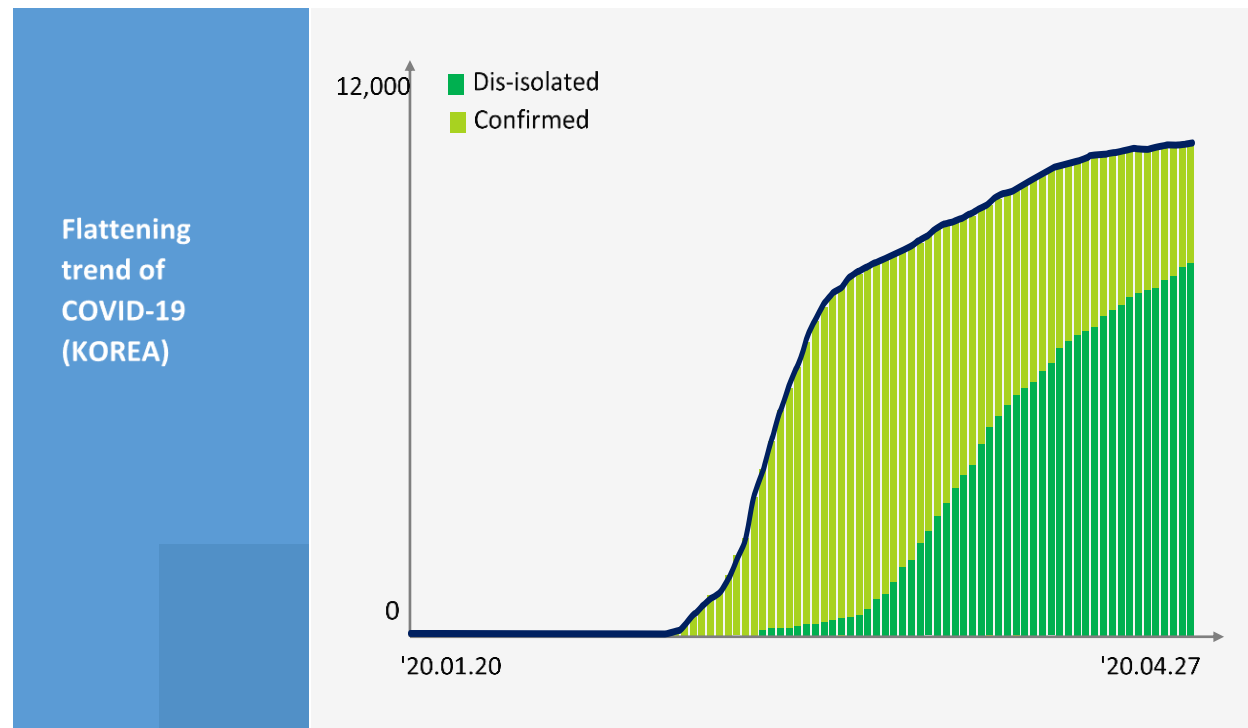


Ministry of Science and ICT



# COVID-19 Situation in Korea

- Korea's COVID-19 cases per day reached a peak of 909 on Feb. 29
- The number of new cases per day dropped to around 10 as of now



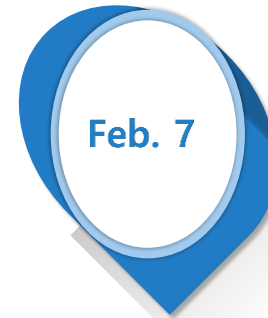
# Test Kits Development



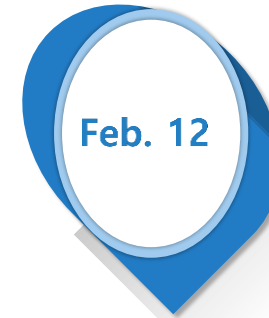
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**Seegene** started focusing on coronavirus.



The first version of **test kit** was made available.



The test kit was **approved** by the KCDC.

An artificial intelligence-based big data system made possible to develop a test kit quickly. It would have taken 2-3 months without the AI system

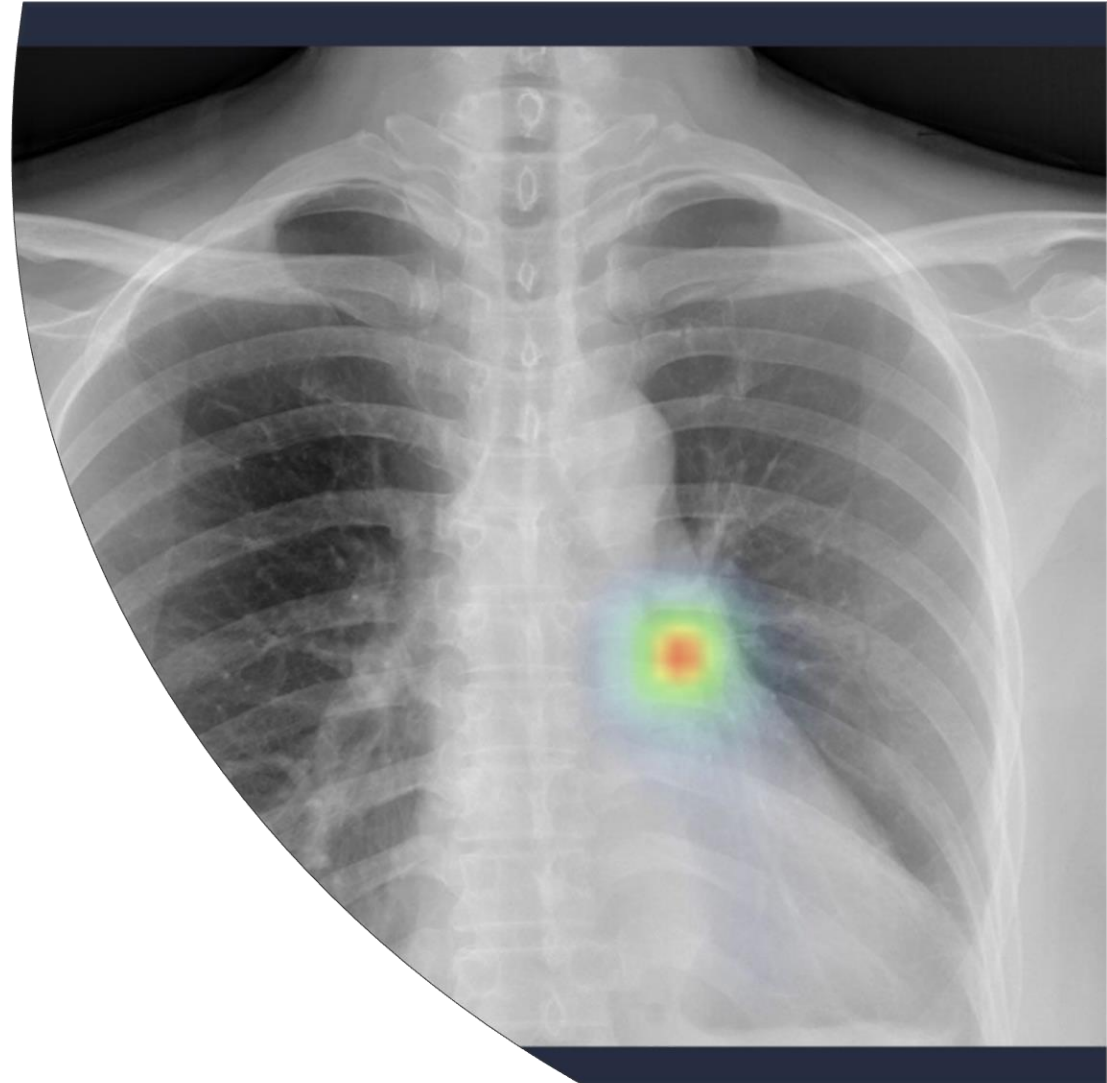
The normal process for approval would take a year and a half

Companies obtained emergency approval

Test kit development using AI (Seegene)

# AI-Assisted Diagnosis

- Detect abnormal lung conditions of COVID-19 patients in just a few seconds
- Connected to portable X-ray equipment in COVID-19 screening centers or ambulances



# Self-quarantine Safety APP

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## [Installation]

- Voluntary-based for residents in Korea
- Required at entry since April 1

## [Registration]

- personal information and location data

## [Self-diagnosis]

- Submit self-diagnosis reports twice a day

## [Case Officers Notified]

- When subjects become symptomatic or leave the designated location

# Epidemiological Investigation Support System

## COVID-19 SMS

※ Paperwork and contacts needed amongst 28 organisations supporting KCDC have been replaced with the automatic system

Before application

After application

Analysis  
on the  
movement  
of  
confirmed  
cases



Manual analysis  
by officials  
(taking 24 hours)



Automatic analysis  
via system  
(less than 10 minutes)

Management  
of access  
to personal  
information



Inefficient management  
by **hand-written records**



Efficient management  
by **computerised records**

Coordination  
between  
organisations



Overloaded work  
and **delayed contact**



Real-time  
information **interchange**

### <Privacy Protection>

- Access control
- Minimum data collection
- Activities of each user under strict surveillance
- Temporary operation
- All data to be deleted after COVID-19 is over

# ICT Infrastructure Emergency Response

- **Communications infrastructure**
  - Staggered shifts for key facility management staff
  - Emergency backup team in case of a workforce shortage
  - Remote network operations in case of shutting down
- **Preparation for traffic surge**
  - Call capacity of KCDC's COVID-19 hotline increased
  - Call capacity of home shopping channels increased
  - EBS servers and IXP capacity increased



# Support for Remote Learning/Working

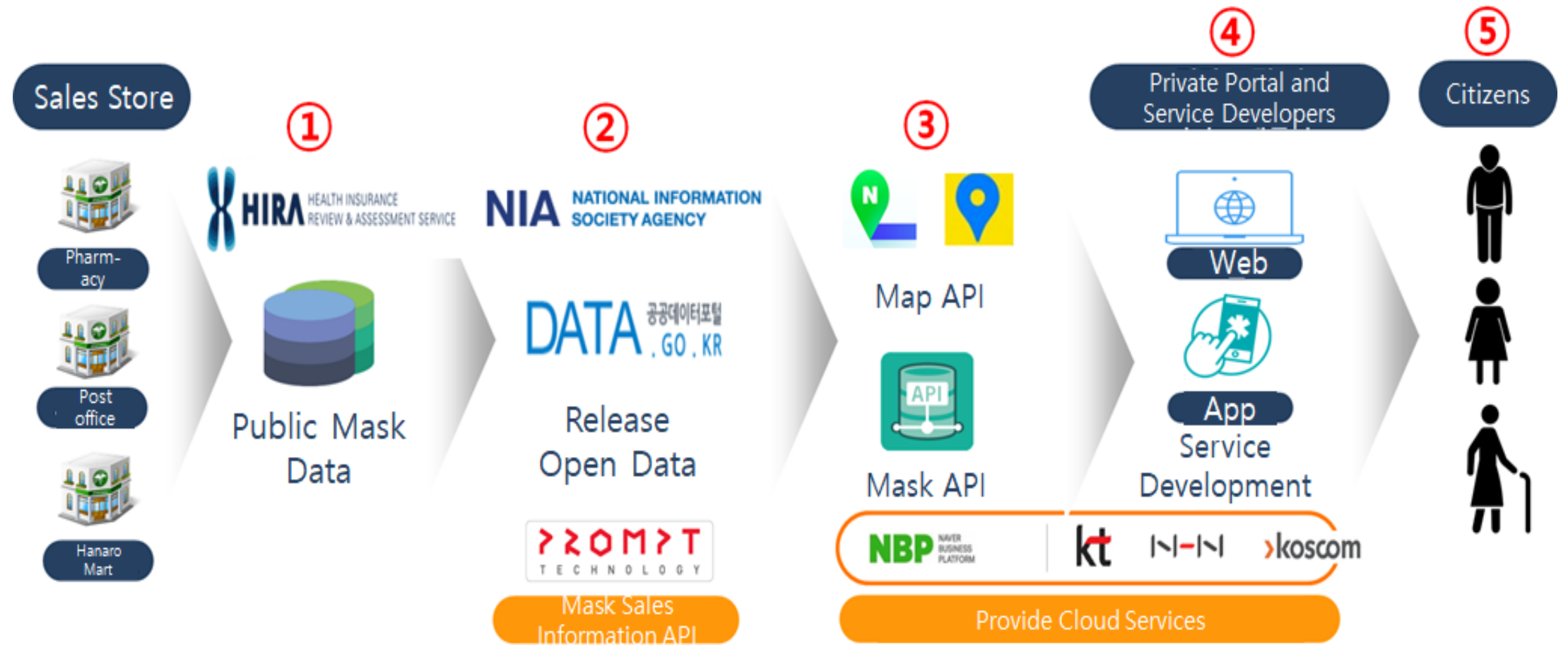
- Remote Learning
  - 8.4 million students(elementary, middle, high school and university)
  - EDISON (Online simulation platform)
  - Zero-rating for educational web sites
- Remote Working
  - A website providing information about remote working solution companies



The Prime Minister holding a COVID-19 video conference



# Publicly Distributed Mask Info Service




# Response To Telecom Scams

- Alert SMS to prevent smishing on a regular basis
- Phishing prevention app; mobile antivirus software
- Phone numbers used for phishing will be immediately suspended upon the report of the scam cases

Financial Supervisory Service

## Precaution Smishing

using fake COVID-19 guidance SMS



- If you received a suspicious SMS,
  - Don't click on suspicious telephone number and internet address(URL) in the SMS

[Normal SMS(example)]

[MOIS] Please maintain enhanced personal hygiene measures, such as wearing a mask and frequently washing your hands to prevent the spread of COVID-19

(Gyeonggi Provincial Office) Please refrain from attending religious events including church services, Buddhist or Catholic services, as well as a variety of other large gatherings (Call #031-120).


[Abnormal SMS(example)]

[Web] Rapid spread of COVID-19. Go to check the identity of confirmed and the contact people [news.naver.com](http://news.naver.com)\_\_\_\_\_kr


[Web] a confirmed patient contacted with a large number of people at the rest area [http://\\_pDX](http://_pDX) Go and check the rest area

Data : National Police agency

※ KCDC(☎1339), HIRA(☎1644-2000) may call or send SMS to prevent the disease, but **hang up** if you were requested **money or installation of an app.**



- If you were requested installation of an app,
  - If a malicious app was installed, **account number, personal information** may be leaked.
  - Therefore don't install a suspicious app
  - **Never enter the password** even if app was installed



- If you already remitted,
  - **Request immediate suspension of account payment** to the bank(customer center) or police (☎182) or FSS(☎1332)

# Putting best efforts together...

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- COVID-19, A **big threat** to all humanity
- ICT, an **effective tool** to fight against pandemic
- With **ICT** and **international collaboration**,  
hope to overcome the pandemic shortly

For more information, visit

<https://www.msit.go.kr/english/msipContents/contentsView.do?catId=tst60&artId=2832048>  
(How Korea responded to a pandemic using ICT, Flattening the curve on COVID-19)

# Thank You



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