GEPP leveraging on Public Private Partnership

Mobile solution to assist national response policy for pandemics
Overview of KT Corp.

- **Total Revenue (end of 2018)**
  - USD **21 billion**

- **No. of employees (As of 4Q 2018, KT only)**
  - about **23,900**

- **Main Business (As of 4Q 2018)**

<table>
<thead>
<tr>
<th>Service</th>
<th>Mobile</th>
<th>Fixed Broadband</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>21.1M</td>
<td>8.7M</td>
</tr>
<tr>
<td>(M/S)</td>
<td>(31.7%)</td>
<td>(47.6%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Service</th>
<th>Fixed Phone</th>
<th>Pay TV</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15.1M</td>
<td>10.4M</td>
</tr>
<tr>
<td>(M/S)</td>
<td>(64.1%)</td>
<td>(42.5%)</td>
</tr>
</tbody>
</table>

* 35 subsidiaries (IT Services, Media & Contents, Convergence and Platform Businesses)
1. KT’s Human-oriented Technologies for improving life

On A.I, Bigdata, and 5G network, KT’s technologies are designed to improve people’s life

* GEPP: Global Epidemic Prevention Platform
2. MERS-CoV outbreak in 2015

Korean Gov. didn’t know the origin of the first case by MERS, and failed to contain swiftly.

Casualties
38

Confirmed
186

Isolated
16,693
3. Private Public Partnership (KT-KCDC MoU in 2016)
KT signed a MOU with Korea Centers for Disease Prevention and Control (KCDC) to launch GEPP

- Locating risky travels
- SMS alerts
- Assisting epidemiology

KT-KCDC MoU

- Updating Disease Risk Areas
- Risk monitoring
- Policy formulation
4. GEPP - International Mobility Tracing
Roaming-driven data analysis allows a national health authority to identify the movement of those who traveled disease-prone countries and to send SMS alerts to improve the travelers’ risk awareness.
5. GEPP - Domestic Mobility Tracing

Domestic Tracing enables government to trace travel history of confirmed patients and close contacts. It prevents additional spread of the virus by supporting prompt quarantine.

Tracing of Confirmed Cases

- Identifies a pathway of the confirmed cases using their nearest mobile base station by contact time.

Tracing of Close Contacts

- Identifies suspects who stayed near the confirmed cases.

Government

- Quarantine Management
  - Gov. can conduct prompt investigation and quarantine at the area.

- Notice
  - SMS alerts sent to those who live or visit nearby.
6. Impact of Digital Tracing in Korea

First COVID-19 case in Wuhan 2019
COVID-19 Outbreak 2020

Domestic Mobility Tracing (Tracing of confirmed cases & contacts)

Daily Confirmed COVID-19 Cases and deaths in S. Korea

Flattened the Curve on COVID-19

National Bureau of Economic Research : May 2020

INEQUALITY OF FEAR AND SELF-QUARANTINE : IS THERE A TRADE-OFF BETWEEN GDP AND PUBLIC HEALTH?

If the UK had adopted South Korean policies, its GDP loss and infections would have been substantially smaller both in the short and the long run. This is not because Korea implemented policies sooner, but because aggressive testing and tracking more effectively reduce infections and disrupt the economy less than a blanket lock-down.

* Source : OurWorldInData.org/coronavirus

Source : National Bureau of Economic Research

Massive Testing
Real-time Contact Tracing

No Lockdown
Economy Contraction (Job Loss)
Min. Economy Loss
Low Death Rate (2%)

Herd Immunity
Death Rate (12%)

Lockdown

* Source : Business Insider Article
7. Global Adoption of GEPP (Since 2017~)

GEPP was launched in Kenya, Ghana and Laos for global cooperation.

- **KT**-MoH* of Lao P.D.R. MOU ('19.03)
- GEPP Launching ('19.09)

- **KT**-GHS** MOU ('18.11)
- GEPP Launching ('19.08)

- **KT-Safaricom MOU ('17.05)
- GEPP Launching ('19.12)

Public User

Safaricom

Data sharing

Government

REPUBLIC OF KENYA
MINISTRY OF INFORMATION, COMMUNICATIONS AND TECHNOLOGY

Safaricom

Customer location

Disease info.

USSD Service by Safaricom

Global Epidemic Prevention Platform USSD Customer Journey(Roaming Users)

Dashboard of Ministry of Health

Safiri Smart in Kenya (Dec. 2019~)
9. Lessons learnt

GEPP is multi faceted solution and requires multi-stakeholder collaboration.

<table>
<thead>
<tr>
<th>Governance</th>
<th>Rules and Regulations</th>
<th>Network/ICT Infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government-led Implementation (i.e. Inter. Ministry Steering Committee)</td>
<td>Inter-Ministry collaboration for legal advices on ICT, data, and privacy law etc. i.e) Ministry of ICT, law, foreign affairs, and Health etc.</td>
<td>Nationwide mobile coverage</td>
</tr>
<tr>
<td>Clear dockets and reporting lines in the local government</td>
<td></td>
<td>Mobile operational data connection capability</td>
</tr>
<tr>
<td>Multi-Stakeholder management</td>
<td></td>
<td>Interoperability with the local government system</td>
</tr>
<tr>
<td>Financial sustainability</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: In the case of South Korea, a new act (The Article 76-2) has been established and revised in light of MERS, COVID-19.
10. GEPP’s New Face

A holistic ICT solution to assist a national response framework: Test, Trace and Treat
11. Multi-stakeholder collaboration