

### ICT Policies

The Korean government set up the "Future Growth Engine Implementation Plans" to nurture 19 industries by 2020 including 5G mobile communication, wearable smart devices, intelligent semiconductor, IoT and big data.



Future Industries

Intelligent Robot / Wearable Smart Devices / Realistic Content / Smart Bio Production System / Cyber Training System



Mainstay Industries

Smart Car / Deep-Sea Offshore Plant / 5G Mobile Communication / Vertical Takeoff and Landing (VTOL) Unmanned Aerial Vehicle (UAV)



Public Welfare and Energy Industries

Customized Health Care / New and Renewable Energy Hybrid System / Smart Disaster Safety Management System / Direct Current Transmission and Distribution System / Micro Power Generation System



Basic Industries

Convergence Materials / Intelligent Semiconductors / Internet of Things (IoT) / Big Data / High-Tech Material Processing System

### Tax Benefits

In 2017, the Korean government started to offer 30% of tax credits for the R&D expenses in the 11 new industries.

11 new industries include intelligent information, next-generation electronic data device, next-generation broadcasting communication system, next-generation SW and security, content, composite materials, robotics, aerospace technology, bio-healthcare, future-oriented car, renewable energy and the environment.

## Success Case

### NOKIA Solutions and Networks Korea (NSN Korea)

NOKIA Solutions and Networks Korea (NSN Korea), founded in January 2007, is a global communication equipment and system company in the network, communication, and mobile sectors. It has collaborated with three Korean mobile service providers including SK Telecom, KT, and LGU+.

NSN Korea has joined the 5G forum of Korea since 2012 and has been playing a key role in leading the 5G technology and standards.

## KOTRA WORLD WIDE

As Korea's Trade-Investment Promotion Agency, KOTRA has 127 overseas offices and 10 headquarters worldwide.

\* Invest Korea(IK), Korea's national investment promotion agency, was established as part of KOTRA to support the foreign businesses in Korea.



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KOREA'S LEADING INDUSTRIES

# INFORMATION & COMMUNICATIONS TECHNOLOGY



# 01

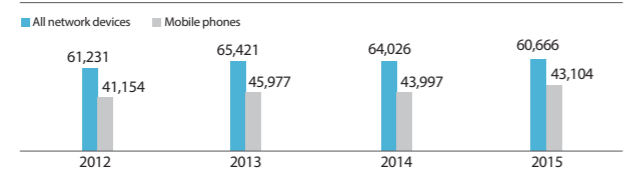
## Korea's ICT Industry

The Korean network equipment industry is steadily growing thanks to the development of mobile network services and smartphones.

### Mobile Devices

Korea's production of mobile phones has risen since 2012 by 4.7% annually to exceed USD 43 billion in 2015. Its exports volume increased by 12% during the same period, reaching USD 31.8 billion.

Production Trends of the Korean Network Equipment Industry (USD million)

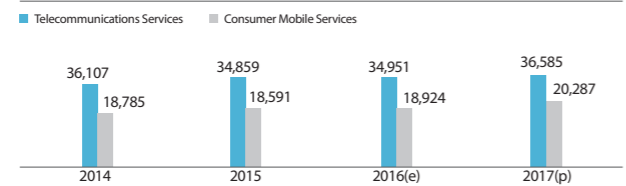


Source: Gartner

### Network Services

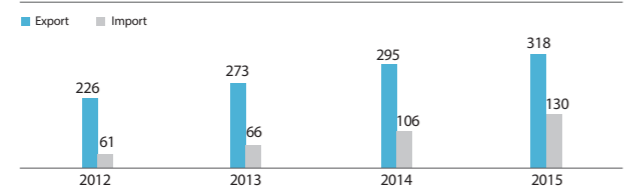
The Korean data service market surged to reach USD 24.5 billion, with the country's fastest growing smartphone penetration rate in the world. The market is expected to grow by about 9.2% to record USD 27 billion by 2017.

Status and Prospects of the Korean Network Services Market (USD million)



Source: Gartner, Mar.2016

Export/Import Trends of the Korean Network Services Industry (USD million)



Source: IT Statistic of Korea

Korea plans to launch 5G pilot network services at the PyeongChang 2018 Winter Olympic Games. Massive investments are being made to commercialize the service for the first time globally by 2020.

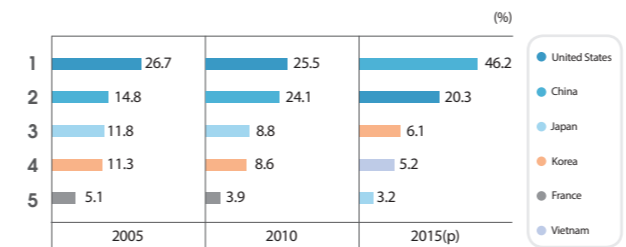
# 02

## Competitiveness

### A Global ICT Powerhouse

Korea is the world's third largest producer of wireless network devices and the first in the world to commercialize CDMA in the 1990s. It also successfully commercialized the LTE-A and broadband LTE-A services in 2013.

Top 5 Wireless Network Device-producing Nations by Year

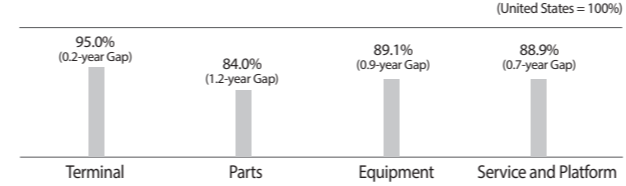


Source: Reed Electronics Research

### Technological Prowess

Korea boasts a world-class competitiveness in the core parts sector such as memory, display, and AP. It also has gained a dominant position in LTE patents and commercialization.

Levels of Technological Competitiveness of Mobile Network Industries for Each Area (United States = 100%)

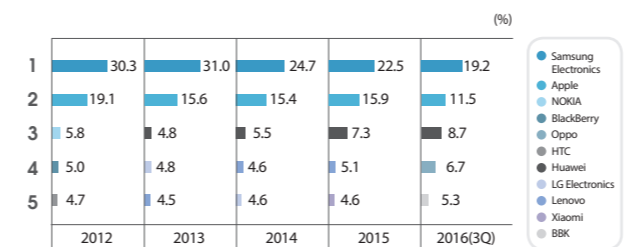


Source: Institute for Information & Communication Technology Promotion (IITP), Feb. 2016, Mobile Communication Investment Road Map.

Note: Equipment figures are based on the cellular access system and short-distance mobile access system.

### Home to Global IT Leaders

Global Market Share of the top 5 global smartphone manufacturers



Source: Gartner

# 03

## Industry Clusters

### Variety ICT Clusters

#### Capital Area

Industrial clusters in the capital area are largely divided into Seoul (IT), Banwol/Sihwa (electronic components) and Namdong (intelligence fusion parts).

With regard to mobile phones, Pyeongtaek and Gimpo have LG Electronics' (about 35 million units of annual production) and Pantech's plants and their parts providers, respectively.

#### Daegu/Gyeongsangbuk-do

There is an industrial belt of mobile devices, including cellular phones and their parts, around Gumi and Daegu.

Samsung Electronics' smartphone manufacturing plants and its small- and medium-sized partner companies manufacturing smartphone parts are located in Gumi, while its smartphone parts and system equipment companies are in Daegu.

#### Sejong

An advanced industrial complex to nurture high-tech industries including IT convergence, BT and ET, has been under construction in South Korea's administrative capital Sejong since 2013.

Status of Korean ICT Clusters

