Korea’s Challenges in the age of digital Transformation
- Recent Innovation Policy Agenda under new administration

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Digitalization → Core Innovation Driver

- Digitalization: Not a core function, rather complementary functions to increase operational efficiency
- Taken as a cost center

- All industries become ICT industry
- Digitalization: Critical capability to maximize efficiency and impact (must have)
  - Redefine value-creation mechanism
  - Data driven decision-making

Ref: modified based on Lee, Ji-hyo (Bain & Co)
Digital transformation
= redefining of industry, goods/services, business model

- Redefining Industries
  - dismantling / recombination of value-chain

- New Product
  - Fundamental change in value proposition
    • servicetization

- New Process
  - Re-design of current legacy business process through digitalization
    • Lifecycle / lead time / cost curve

- New ecosystem
  - Ecosystem for new product/service, process

Ref: modified based on Lee, Ji-hyo (Bain & Co)
Shift in Korean industrial portfolio

- Global: Energy/Petro, Ship Building/Transportation, Electronics
- Local: Retails, banking, telecommunication

Protected (Domestic Market)

Sandwiched between US and China

Several tries but no success yet

Ref: modified based on Lee, Ji-hyo (Bain & Co)
IT revolution (3rd IR)

As-is

Goods

Services

IT manicuring

IT Service

Digitalization of 4th IR

Innovation Front (current)

Converging

Goods

Services

Servicetization of Manufacturing

New Biz Model

Manufacturing within service firm

Expanding

New GPT

= Digital+ Cogno / Bio / Materials

• Combination / converging of several GPT

To be

Converged

Goods

Services

Platform

New GPT

○ Co-evolution of production / consumption, Convergence of goods and service

○ Increasing importance of un-captured GDP

- Physical System → Cyber-physical system (O2O)
- Producer → Producer + Consumer
- Supply → Supply + Demand (user-driven)
- Goods and Service → blurring of goods & service
Manufacturing

Service

Utilization of Digital Technology

Bank

Mobile

GE

Korea

US/Germany

Manufacturing

Service

IT Manufacturing

Mobile

SK Telecom

Samsung

LG

Automobile

Hyundai

POSOC

Steel

Automobile

Hyundai

Samsung

LG

Bank

Kukmin Bank

Google/Amazon

GE

Apple

Bank

Utilization of Digital Technology

• Every Industry becomes ICT-like → Change in rule of Game

Digitization? Just one of the competence
Innovation Policy Agenda under new administration

- Currently new executive branch is under construction
- Several agenda related with Innovation Policy is discussed

(1) Digitalization: One of three Policy Priority
  - (1) Job creation, (2) 4th IR and (3) low birth rate
  - Creation of so-called “Presidential Committee for 4th IR”

(2) Re-established “Office of STI” (revived after 9 years)
  - Budget coordination, pre-feasibility study, performance evaluation etc.

(3) New Ministry “Ministry of SM & venture Enterprises”

(5) Increasing the funding for basic research