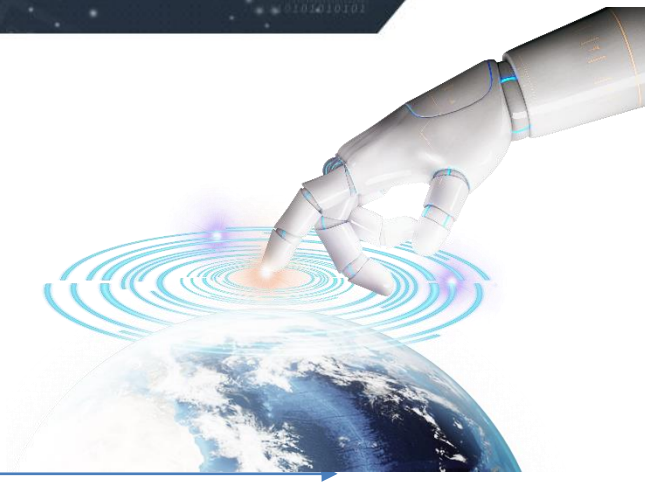
OSS Trends and Projects of Korea

Korea Open Source Software Promotion Forum

2018.11.15

Jeongmin Woo

Agenda



01 Global OSS Trends

02 Korea OSS Market Overview

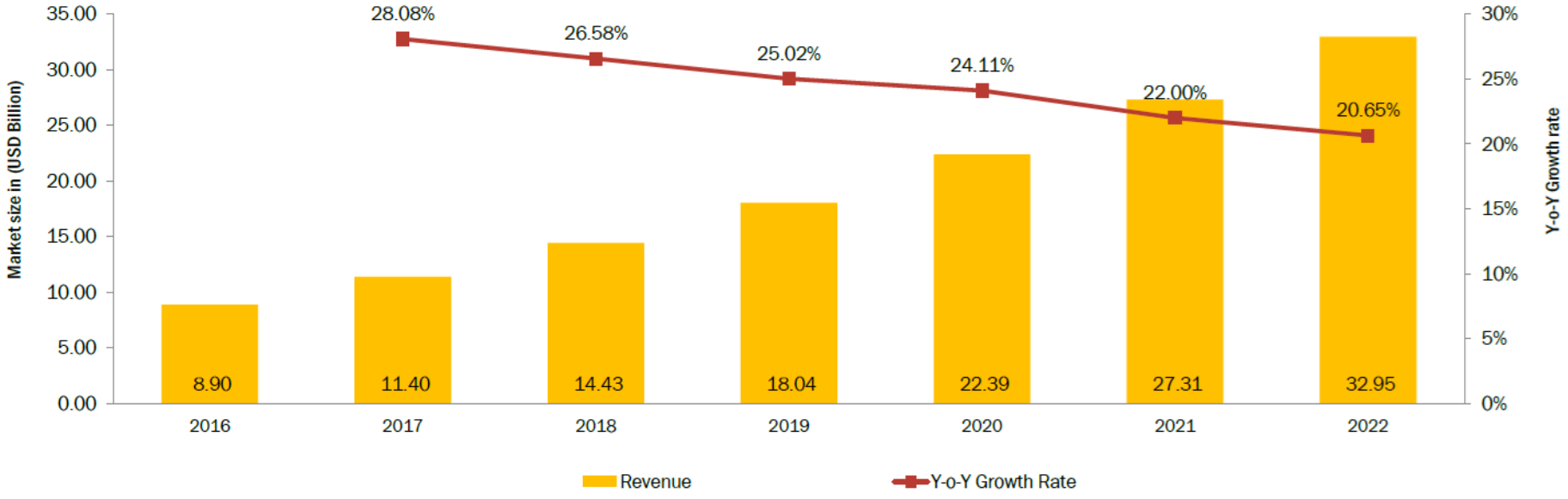
03 Successful Cases of OSS Adoption

04 Main Activities of Korea

1. Global OSS Trends

Spreading the "new SW business paradigm"

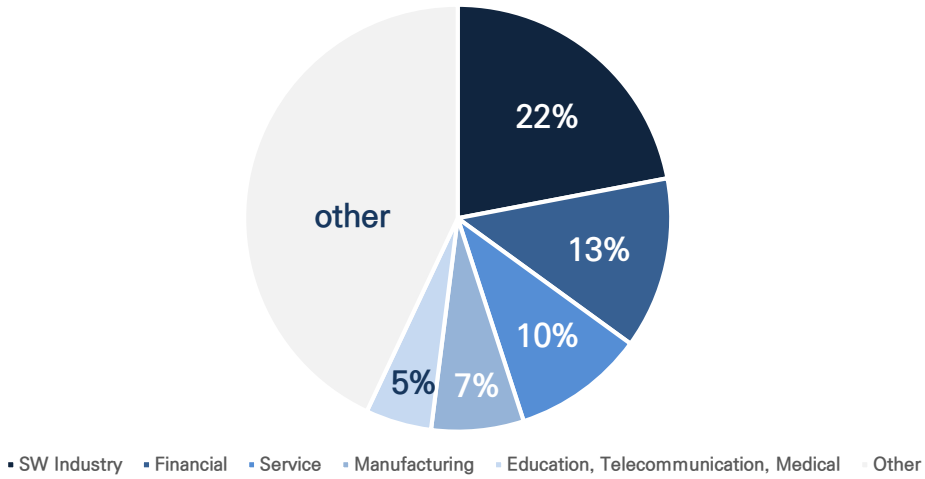
The global OSS market(2017)
– size $14.4 billion, annual growth 24%, expected $32.9 billion by 2022
('18, Markets & Markets)



1. Global OSS Trends

OSS usage by Industry Ranking

(‘18, Github)



(Technology) Expansion into the latest technology field

(AI, IoT, Big Data, Block Chain, AR / VR, Cloud, Development Environment, etc.)

Enterprise / Foundation	Technical Field	Number of Projects
Apache/ Linux	Big Data,Cloud, IoT, Networking, etc.	≒500
Google, MS, Oracle	AI, Open DB, Development environment	≒300

(Human Resources)

- Number of Global OSS developers ≒ 28 million
- Number of OSS projects ≒ 67 million
- 65% of global companies support OSS participation activities of their developers

  (1.5million Institutions/enterprises)

  (‘18, Github)

(Usage)

- 96% of global SW products are developed using OSS

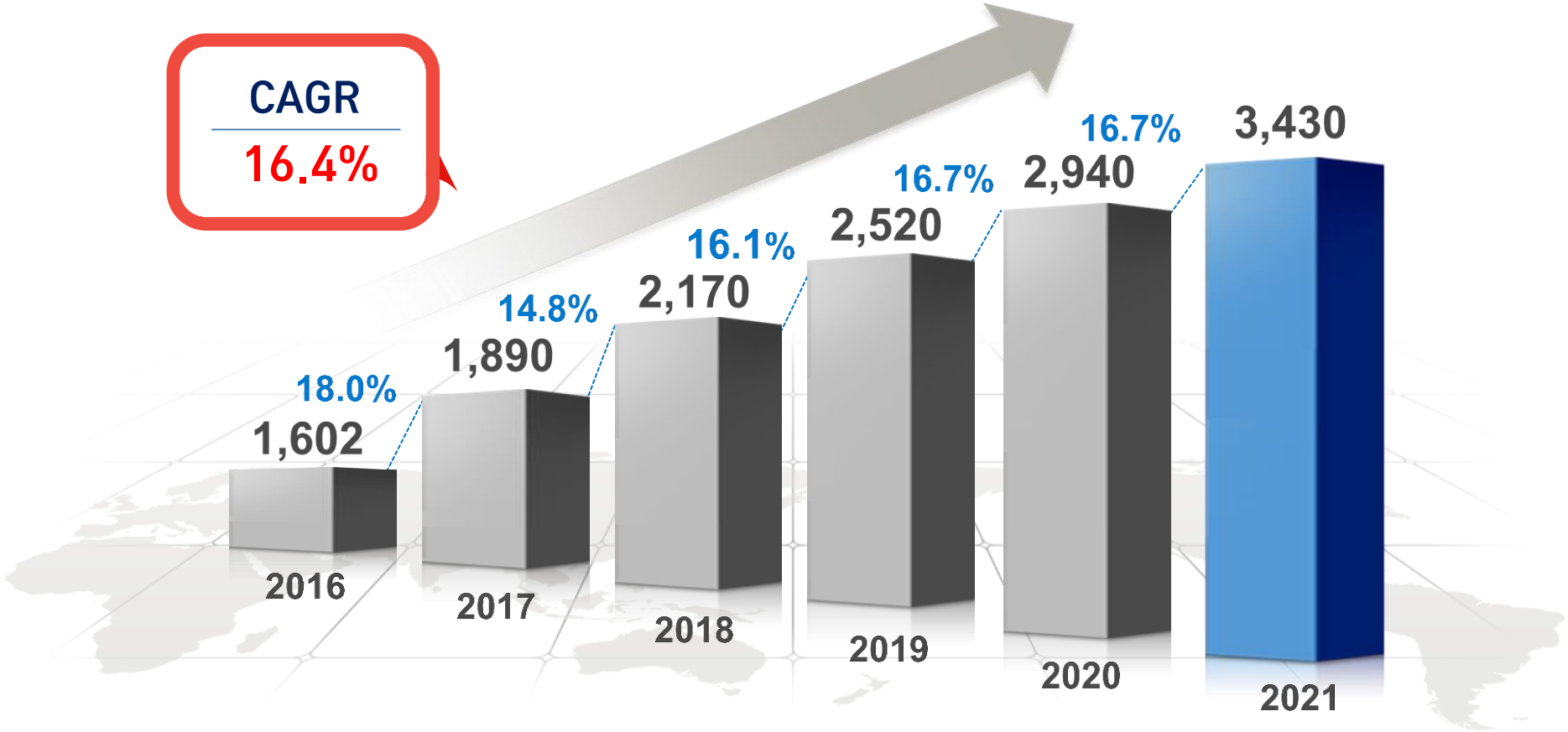
  (57% of code contribution)
- License violation rate≥44%

  (‘18, Synopsys)

2. Korea OSS Market Overview

Korea Open Source Software & Service Revenue

- 2017 Local OSS market reached 1,890 billion Korean won.
- 2017 YoY 18.0% growth. CAGR 16.4% until 2021

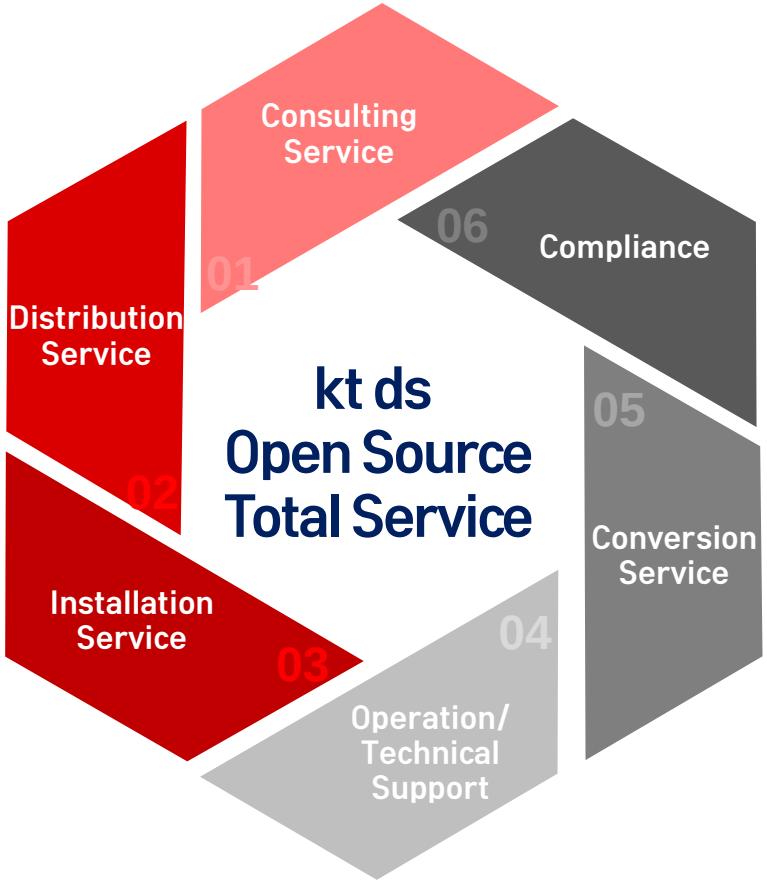


Source : NIPA 2018 / unit : Billion Won

3. Successful Cases of OSS Adoption

Case 1) kt ds Open Source Business

Open Source Based Solution & Business
– Consulting, Technical Support, Migration, Solution Development and AI/Blockchain



Open Source based Solution & Business

AICentro	OBICs DataArk	Blockchain
AI Platform	Bigdata Platform	Blockchain SI
OBICs Watch SMS	OBICs Watch APM	OBICs COMPASS
System Monitoring	WAS Monitoring	Compliance & Security

3. Successful Cases of OSS Adoption

Case 1) kt ds Open Source Use Cases(Cont.)

kt ds is leading open-source SW introduction, expansion and technical-support for cost reduction and new technology in kt group.

System SW

- Standardized and prioritized OSS/Cloud
- Reduced IT infra cost by OSS adoption

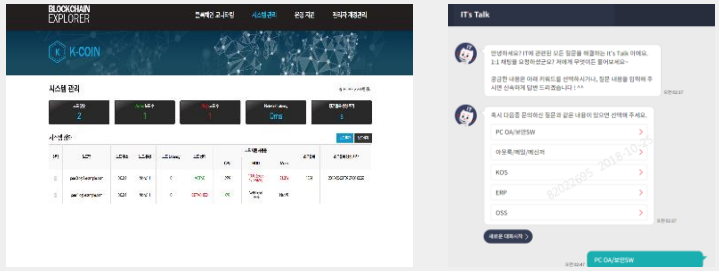
Open-source Comliance Management

- Contributed to open-source expansion in kt system
- Prevented open-source compliance risk & issue

Monitoring System based on OSS

- Developed monitoring solution(SMS, APM) based on OSS
- Alternated commercial SW to monitor system failure as a kt standard SW

AI & Block chain



- Developed ‘AI Call Center System’ based on AICentro
- Developed kt DataChain, block chain platform.

3. Successful Cases of OSS Adoption

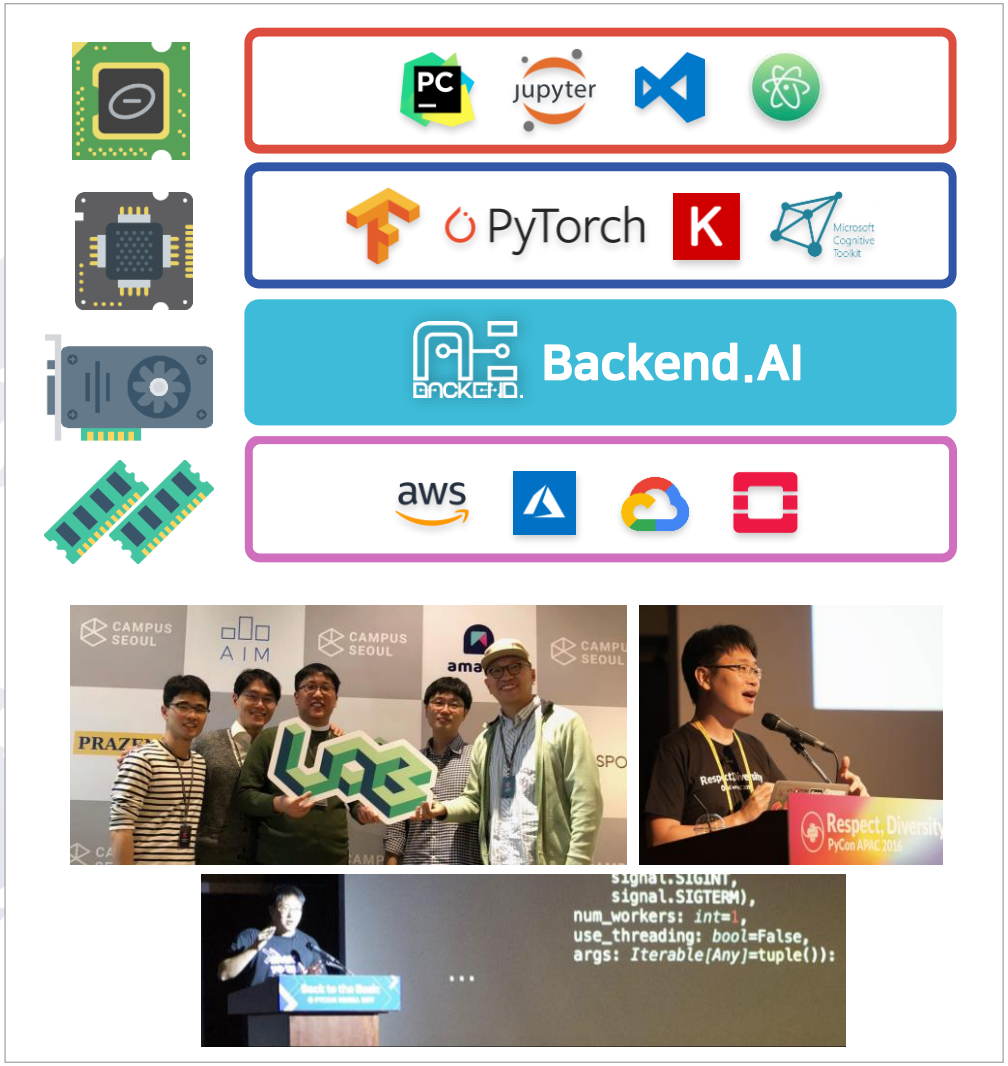
Case 2) Backend.AI – "Make AI Accessible"

Started in 2015, open-sourced in 2016

- Framework to easily manage & scale computation resources including GPUs, TPUs, etc.
- Community contributions back to PyCon KR/APAC and aio-libs
- NVIDIA/AWS Technology Partner

Fast-paced development cycles publicly accessible via GitHub

Gathering customers from financial, healthcare, and education sectors



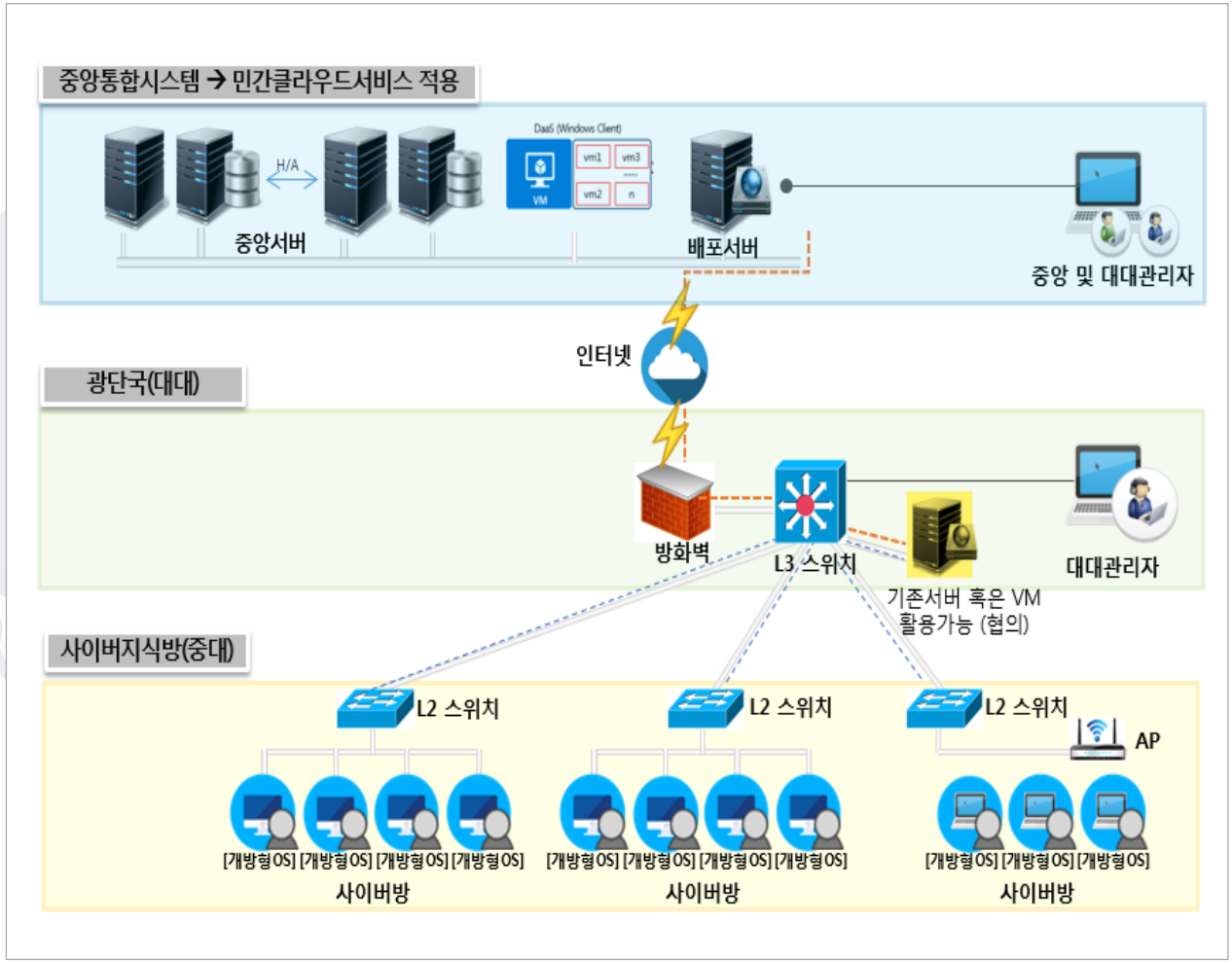
3. Successful Cases of OSS Adoption

Case 3) Open Source OS in Ministry of National Defense

Cyber Information studio
– e-learning and self-development
– Introduced 35,000 Open OS PCs

Windows OS –〉
Gooroom OS or Ubuntu

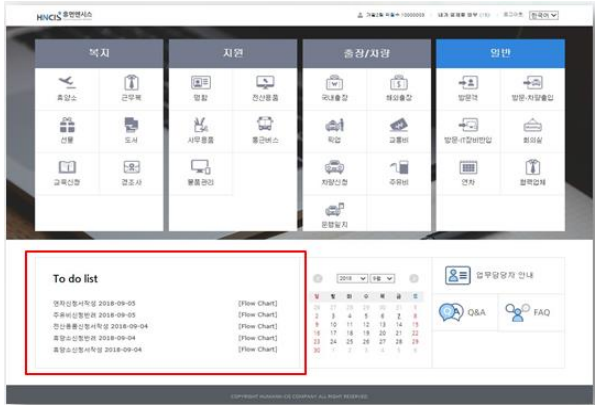
Spread and apply cloud and OSS,
promotion for extension
after verifying



4. Main Activities of Korea

Activity 1) Open Source Software R&D project(NIPA)

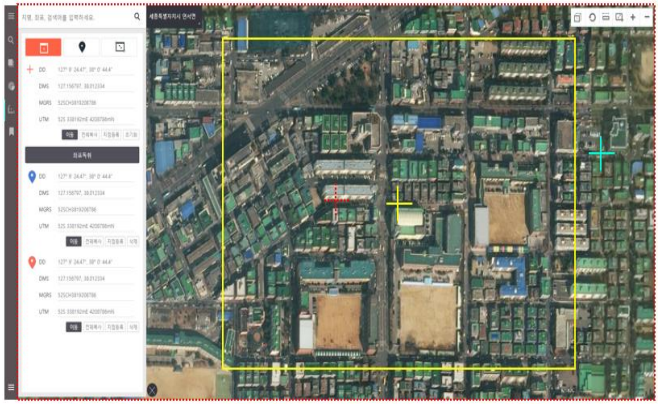
1. Prospective Tech.



Smart Work System

- Low Cost Business Management System
- MSE's Efficient Work flow

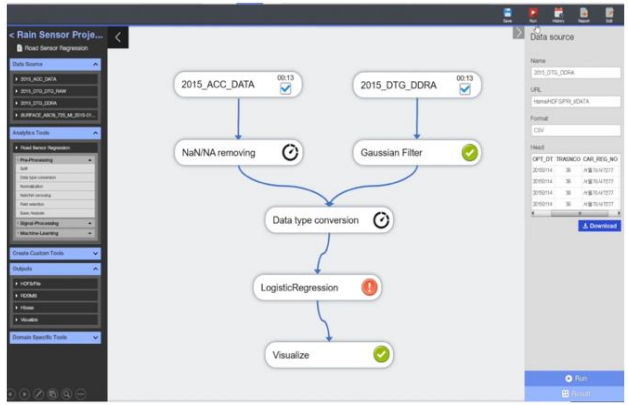
2. OSS Dissemination & Proliferation



OSS GIS Portal Service for Military

- KDGIA consortium
- 3D layer visualization
- Web based Real-time visualization tool

3. OSS for Traditional industries

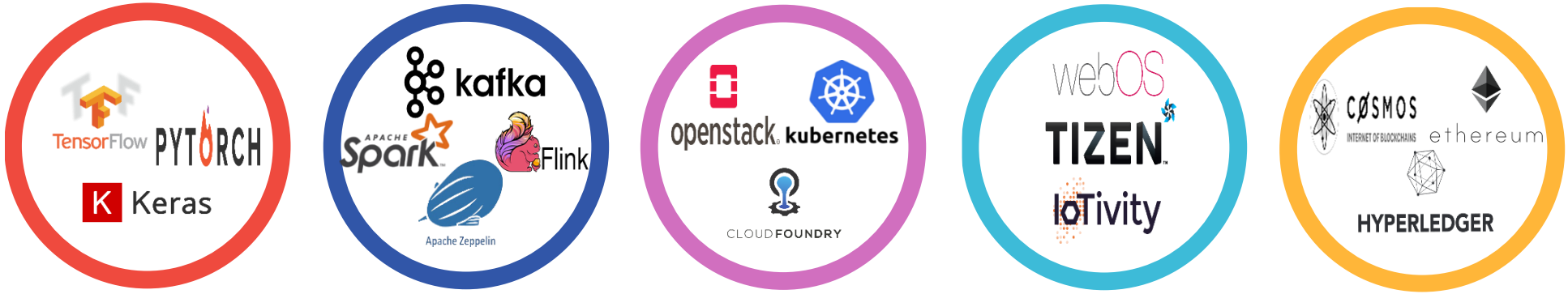


Water Quality Monitoring system

- Real-time Quality monitoring
- Sensor control

4. Main Activities of Korea

Activity 2) Developers participation in global projects and the spread of technology



AI	BigData	Cloud	IoT	Blockchain
대보정보통신(주)	ONYCOM	kt ds	SAMSUNG 삼성전자	Onther Inc.
selvas AI	ZEPL Do more, faster, with data	한국전력공사 KOREA ELECTRIC POWER CORPORATION	smardi	HEALTHMEDi
posco	CUBRID	NeoClova	HURAY (주)휴레이포지티브	
			LG전자	

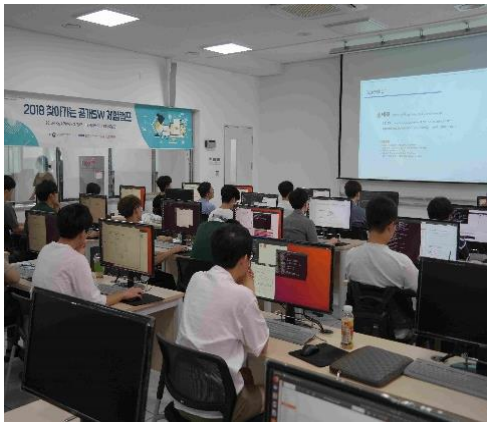
4. Main Activities of Korea

Activity 3) Spread of participation culture

OSS capability training for future developers

- Militaries : Provide online training and development camps
- Students: Provide hands-on training
- Key achievements in 2018

Militaries	14,763 people(cumulative 32,140 people)
Students	4 universities, 371 people participating (cumulative 1,362 people)

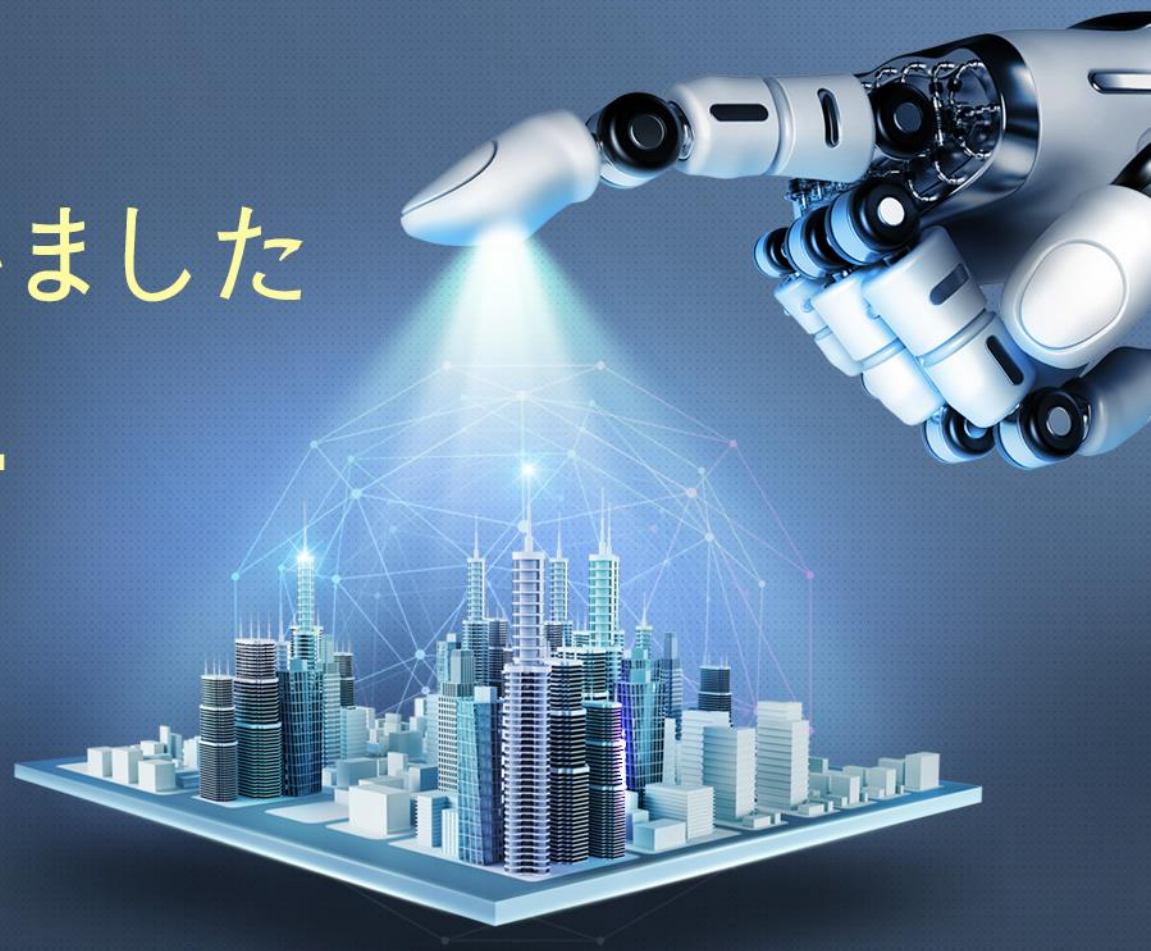


2018 OSS Contributhon

- ’ 18.8.16~10.25
- Participation of over 200 contributors and OSS developers
- 16 OSS projects running in 18 teams
- Key achievements in 2018

Supporters	450 people apply(cumulative 950 people)
Participants	About 250 people selected (cumulative 380 people)

谢谢

ありがとうございました

감사합니다.