OSS Trends and **Projects of Korea**

Korea Open Source Software Promotion Forum

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Agenda

01   *Industry 4.0 & OSS*

02   *Korea OSS Market Overview*

03   *OSS Trends in Korea*

04   *Main Activities of KOPF*

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1. Industry 4.0 & OSS

Industry 4.0 : Name for the current trend of automation and data exchange in manufacturing technologies (Wikipedia, 2017)

- ✓ Smart factory, software integration to the old factory
- ✓ Creation of new value in various industries & products/services by software integration

Open source software

- ✓ World wide participation of software developers and users
- ✓ Concentrates of up-to-date software technology
- ✓ High usability & expansion by source code open
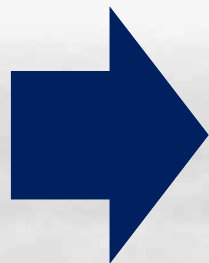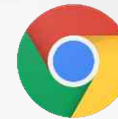
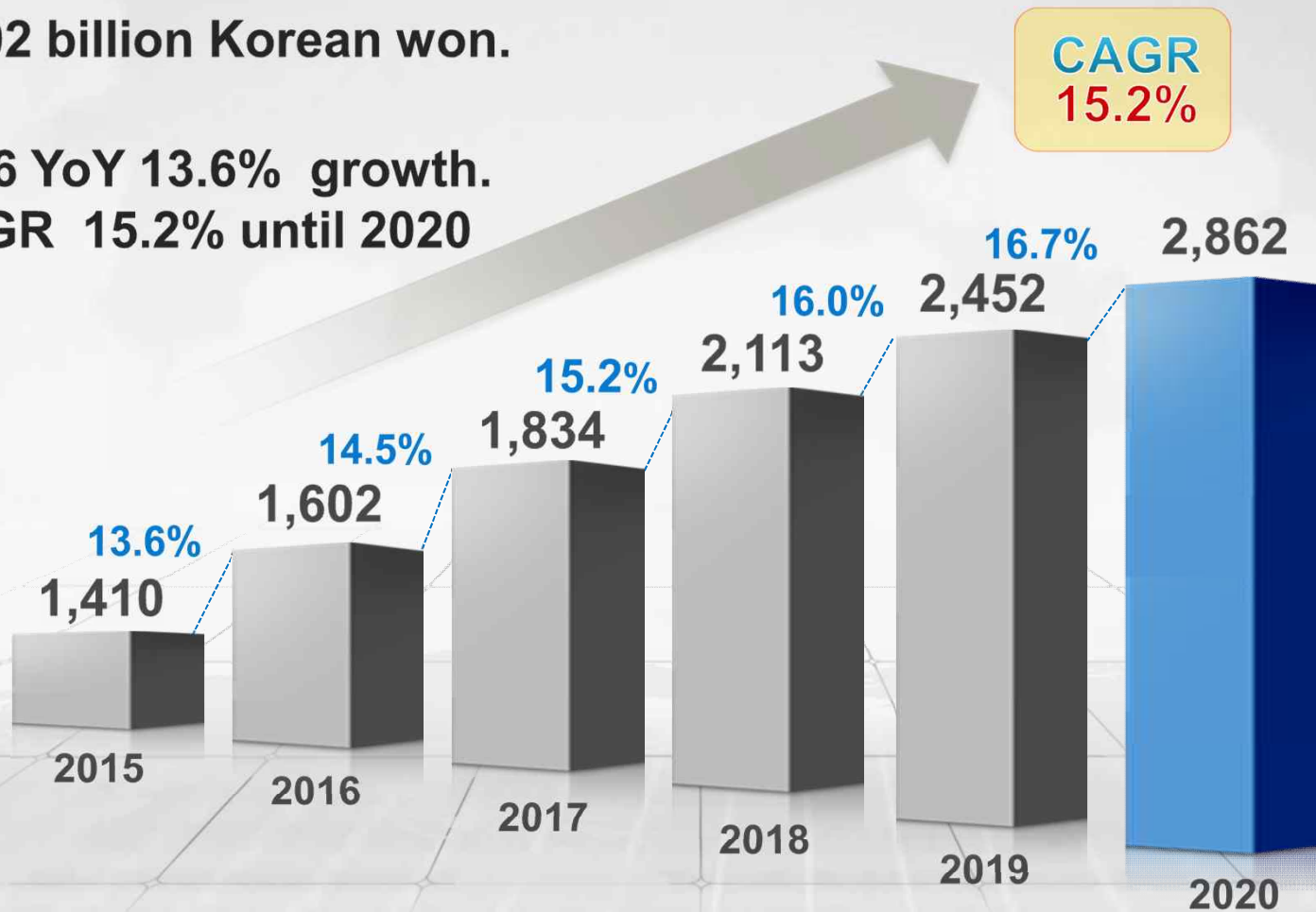➡ Securing software usability in various industries & products/services
 – High software technology / interoperability / connectivity is needed
 – OSS is representative of open innovation model
 – OSS is core ICT infrastructure for industry 4.0

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Korea Open Source Software & Service Revenue

- 2016 Local OSS market reached 1,602 billion Korean won.

- 2016 YoY 13.6% growth. CAGR 15.2% until 2020

CAGR 15.2%

Year	Revenue	Growth
2015	1,410	13.6%
2016	1,602	14.5%
2017	1,834	15.2%
2018	2,113	16.0%
2019	2,452	16.7%
2020	2,862	

Source: NIPA 2017   (unit: Billion Won)

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2-2. Korea OSS Market Overview

Korea OSS Revenue Forecast by SW & Service

unit: Billion Won

Year	OSS SW	OSS Service	Total
2015	610	800	1,410
2016	672	930	1,602
2017	700	1,134	1,834
2018	770	1,343	2,113
2019	996	1,456	2,452
2020	1,073	1,789	2,862

63%

37%

OSS SW   **OSS Service**
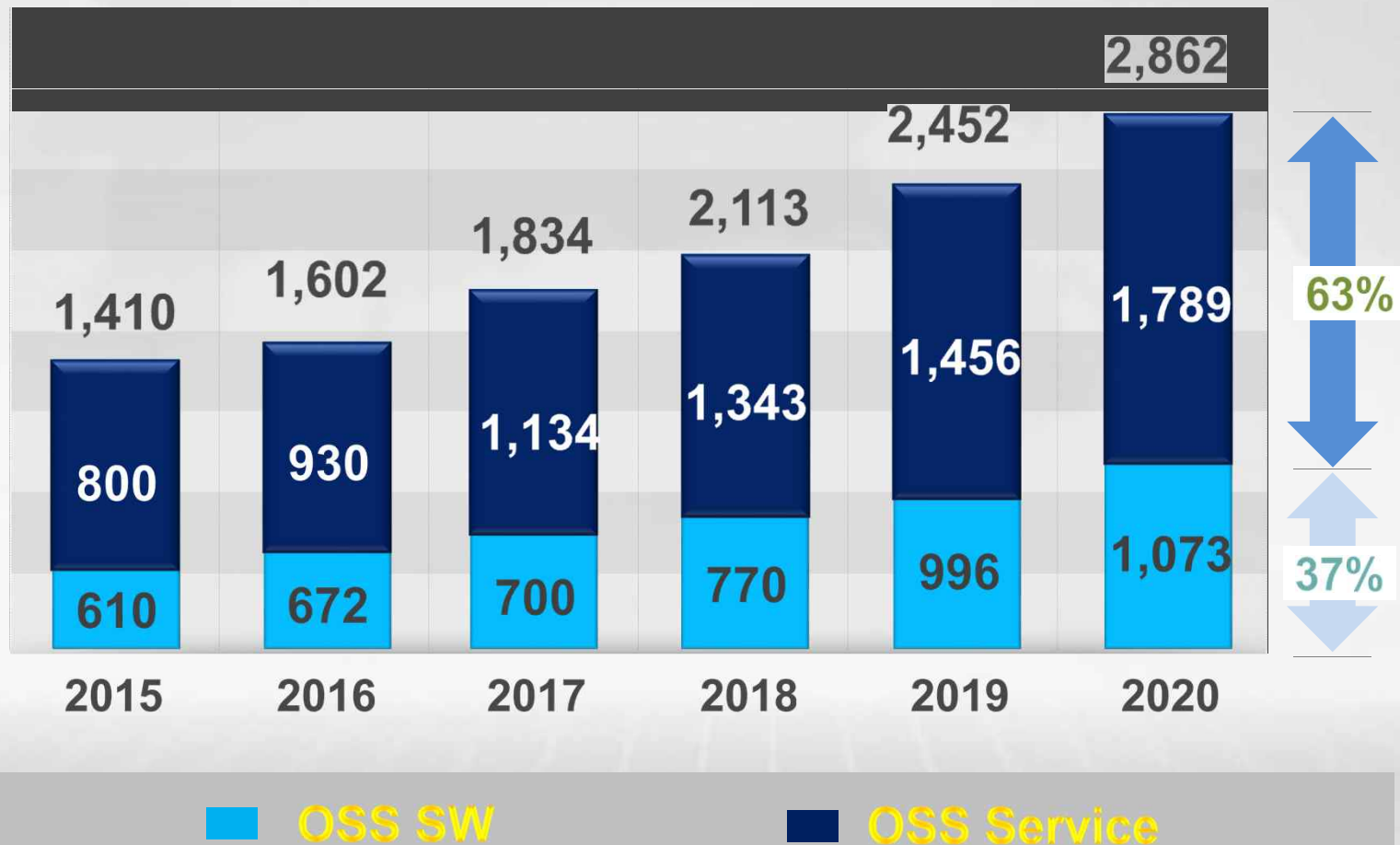
Source: NIPA 2017

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3. OSS Trends in Korea

Flow of Korean OSS Trend

INTELLIGENT

AI Foundation
Intelligent Apps and Analytics
Intelligent Things

DIGITAL

Digital Twins
Cloud to the Edge
Conversational Platforms
Immersive Experience

MESH

Blockchain
Event-Driven
Continuous Adaptive Risk and Trust

Top 10 Strategic Technology Trends for 2018 (Gartner)
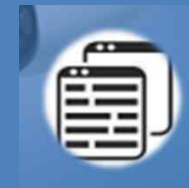
| IoT | Cloud Big data | Mobile | Platform | Smart Machine | Artificial Intelligence | Security | Compliance |

4-1. Main Activities of KOPF (Projects)

Case1) ZEPL – Apache Zeppelin Project

- From 2014 Apache Software Foundation (ASF) incubation project, 2016 promoted Top Level Project with globally 211 contributors participation

- Rapid software function development with world wide contributors

- Securing global users like MS, Google, AT&T of Zeppelin project

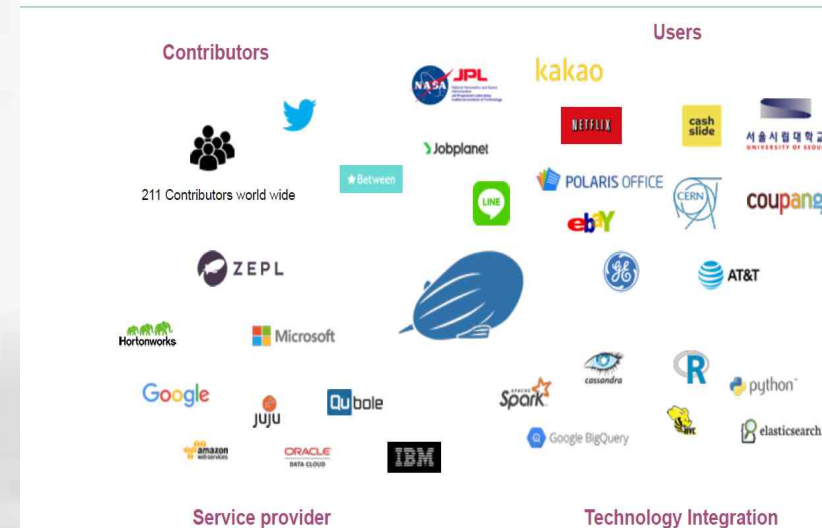- Adoption of up-to-date open source software technologies

Apache Zeppelin

A web-based **notebook** that enables interactive data analytics. You can make beautiful data-driven, interactive and collaborative documents with SQL, Scala and more.
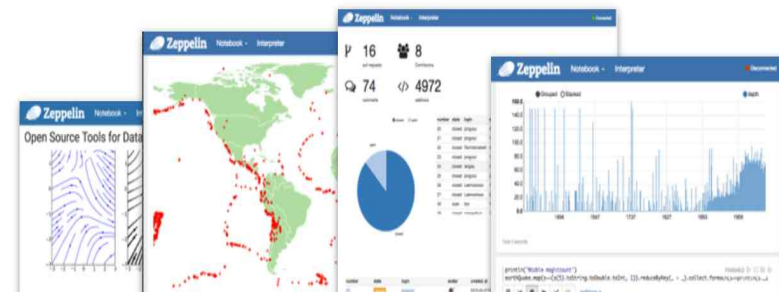
Zeppelin

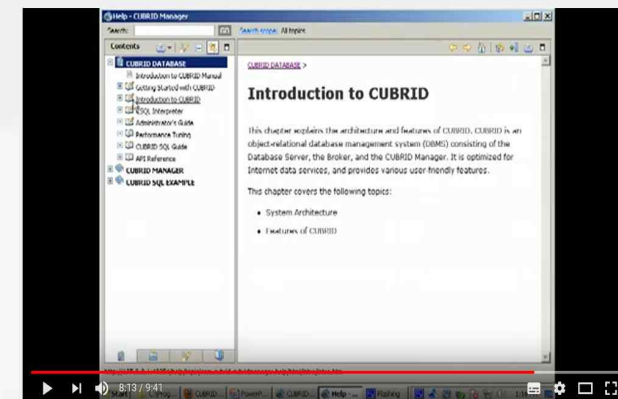(Source : Microsoft "Azure, The Open Cloud 2017, Seoul Roadshow")

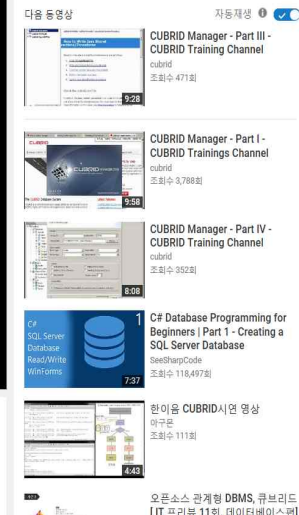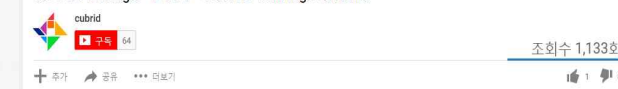# 4-2. Main Activities of KOPF (Projects)

Case2) CUBRID DBMS PROJECT

- CUBRID released CUBRID 6.5 Project in 2006

- After 1 year source code reviewing, CUBRID source code opened

- Easily gathering users usability feedback on CUBRID projects

- Fixing bug, based on users' feedback
  ⇒ Short development period

- 2nd DBMS market share, in Korean public sectors

(Source : http://cafe.naver.com/studycubrid/)

Model Curriculums

Contest & Certificates

Course 1 . . . Course Z

OSS Contest & Certificates

Korea OSS Promotion Forum WG2

. Students
. Lecturers
. Facilities
. Finances

OSS Curriculum

- Procedures
- Courses
- Syllabus
- Course Materials
- Evaluations

China OSS Promotion Union WG2

Japan OSS Promotion Forum WG2

Course A . . . Course Z

Contest & Certificates

Course A . . . Course Z

Contest & Certificates

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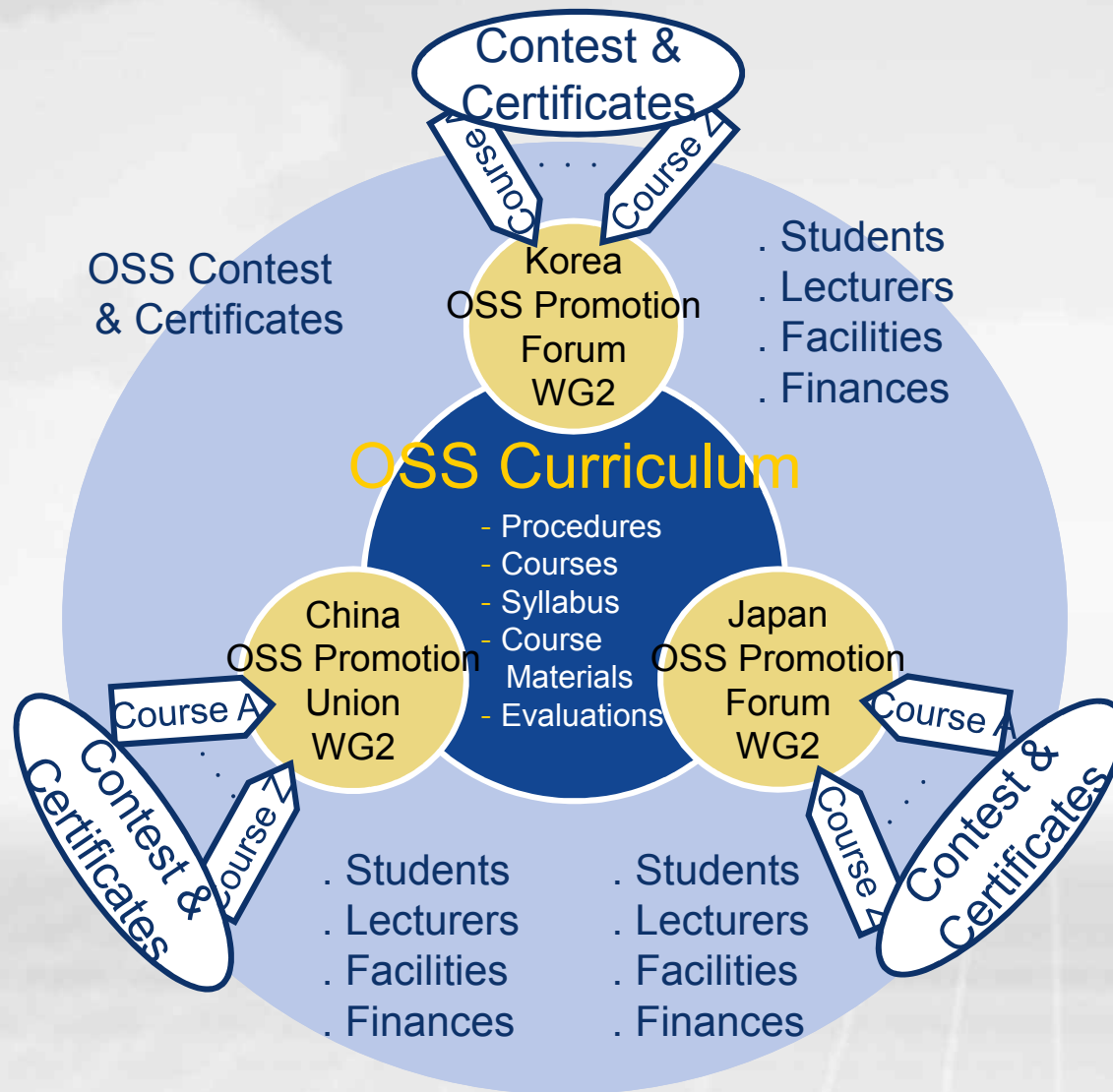
- 2017년 새로운 Model Curriculums 추가
  - IoT
  - Cloud
  - Legal Issues

- 한국 교육 Material 자료 기반으로 Open Source Workshop 개최
  - Git / Node.js / Android / APM
  - Gwangju, Daegu, Seoul etc.

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4-4. Main Activities of KOPF (Evaluation Open R&D)

Guideline for Open R&D Project

| Company | R & D Center | College | Foundation |

Selection Evaluation → **S**

Intermediate Evaluation → **I**

Intermediate Evaluation → **I**

Final Evaluation → **F**

Gradual Termination → ⊗

Selection Evaluation
- Business creation
- Industry expansion
- Standardization
- Creative strategy
- Executable system
- Development competency

Intermediate Evaluation
- Collaboration
- Community
- Standard
- Achievement
- Progress
- Plan

Final Evaluation
- Ecosystem
- Technology
- Transfer
- New Business
- Source Code
- Artifacts
- Documents
- Data Sheet

Gradual Termination
- Autogenous
- Collaborative
- Sustainable
- Expandable
- Derivable
- Applicable
- Transferable

Expand of participation culture

NetDev 2.2 Seoul, Korea

Invitation

We are very pleased to have the opportunity to host NetDev 2.2 in Korea on Nov.

We hope that NetDev 2.2 will be held successfully, and we will prepare the following:

- netconf / NetDev 2.2 Promotion and secretariat role in Korea
- Setting up the venue and supply venue staff / operation etc.

谢谢

ありがとうございました

감사합니다.