



Augmented Knowledge

Augmenting Human Intelligence

Dr. Kevin GS Jo
CEO & Founder
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CTP RJ Choi
CFO & COO
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Company Purpose

Type of Company

- **AI Based Company**
- **Platform Company**
- **Global Company**

Company Business

**AI based AR/VR/MR Platform
for Education, Industrial Field**

Mission

- **Make new world with AI**
- **Make new world with XR**

Vision

**Industry Innovator
XR supported by AI**

Company Overview

Augmented Knowledge Corp. / 2016. 11. 16

3F Digital Pavilion Nurikkum Square Bldg. 396, World Cup buk-ro, Mapo-gu, Seoul
3F Inha Dream Center Bldg. #1, 100 Inha-ro, Michuhol-gu, Incheon, South Korea

CEO & Founder Kevin Jo / GeunSik Jo Ph.D. in Computer Science
(Current) Professor at Inha University
City University of New York

Solution Platform IAR-MAP
Intelligent Augmented Reality Maintenance Platform
: AR/AI integrated B2B oriented platform that push information automatically from server across parts (parts identification, cross-referenced technical documents, work procedures, legacy information) through AR device to guide workers

Providing Contextual Knowledge for workers

- AI Knowledge Manager
- AR Contents Creator
- Augmented Knowledge Viewer

Authentication Venture Company(No. 20190300202, March 2019)

Affiliated laboratory Augmented Knowledge Lab.
(No. 2017112764 / KOITA)
Inha Univ. AI Lab. (<http://ailab.inha.ac.kr>)

Augmented Knowledge Corp.

Empirical Research 2008~2012

- Empirical Research: IAR Project (Korean Air/USC/AIRBUS)
- 30% Increase in efficiency



TIPS & Seed Funding 2017

- Mar Venture Certified (20170300088)
- Apr Seed round 2 (by SparkLabs Global Management)
- May Selected for TIPS Program (TIPA)
- Jun SparkLabs Demoday 9 & IR
- Nov The 2nd National Defense ICT/SW Conference
- Dec SparkLabs Demoday 10



Pilot Test 2019

- Feb. Aviation Festival Asia(Singapore)
- May Aviation Festival Americas(USA)
Augmented World Expo(USA)
Seoul VR/AR Expo(Korea)
- Jul. AI Expo Korea 2019
- Sep. Selected for Incheon VR/AR contents development
- Nov. GMV 2019 (KINTEX)
- Nov. AR manual prototype for fault response (D company)
- Nov. Selected for TIPS Overseas Marketing Funding Support



2016 Business Corporation

- Nov Established (Spin-off from Inha Univ. AI Lab)
- Dec Seed round 1 (by SparkLabs Global Management)



2018 Partnership & Exhibition

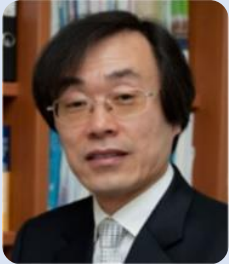
- Mar. Mutual NDA (MotionWerX)
- Apr. Born2Global member company
- May AWE USA 2018 EXPO Exhibition (Santa Clara, U.S.)
- Jun. Techsause Global Summit (Bangkok, Thailand)
- Jul. AI Expo Korea 2018
Busan AR Festival 2018
- Nov. Mutual NDA(Leon Global Trading)
- Dec. Applied to Bearing manufacturing machines



2020 Commercialization

- Apr. Selected for Incheon VR/AR unified contents project demonstration
- May Selected for Realistic Contents Development (RAPA)
- Oct. Selected for Global Membership (Shinhan Group)

Management Team



Kevin Geunsik Jo **CEO & Founder**

- Professor at Inha University
- Head of AI contents creation research center
- Head of committee of AI society/ AI research institute(ex)
- Chairman of Korea AI Information System Society(ex)
- Research and Lecture in AI for 30 years
- Published over 300 papers
- Registered 52 patents in US, Europe, China and Korea
- Received Ph.D. in CS from CUNY, USA



RJ Choi **COO & CFO**

- Strategy, BD, Finance expert with 30 y+
- Vice Chairman of KICTA (ex)
- CGO/CFO of MoneyBrain (ex)
- CEO of SKY Foreign Lang. (ex)
- Div. Head of CellBiotech(ex)
- Team leader of CDNetworks(ex)
- Manager of SK Broadband(ex)
- Senior KATUSA at US Army(ex)
- Korea University Biz. Admin. Univ. of Maryland
- US Army Medal(ARCOM, AAM)
- CTP(USA), CFA L2 passed(USA), New HSK L6(China)
- MBA, AI, SW Engineering, Foreign Languages

AI Experts

AR/VR/MR Experts

Global R&D

Global IR

Global BD



Younghoon Yu **CTO**

- CS expert with 20 y+
- SW design, expert system, mobile
- Director of Research Institute in MCC corp.
- Director of Research Institute in Jenowell
- Ph. D in Computer Engineering, Inha Univ., Korea



Chidon Ahn **Head of Development Team**

- CS & AR/VR expert with 20 y+
- Senior developer in eiNpictures Corp.
- Head of Research Institute in Inter Inform.
- Ph. D in Computer Engineering, Inha Univ., Korea
- Interested in immersive media and AR/VR

Problem: Why deploying AR/VR/MR for industries is difficult?

Simple Graphical Augmentation is not enough



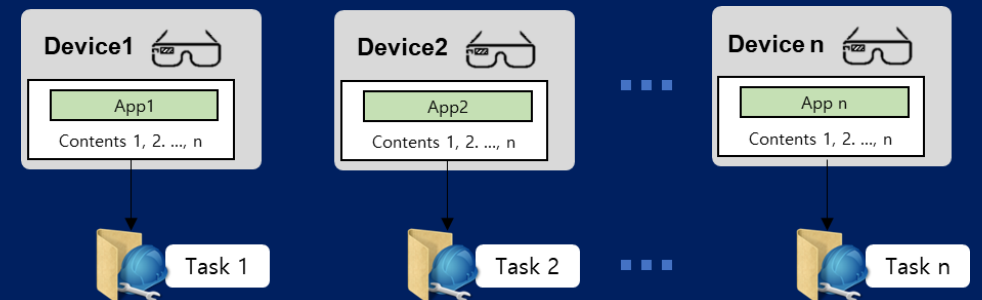
Complexity of pre-built information/legacy manuals and high-cost of AR/MR contents creation



Manuals should be cross-referenced with context-awareness, to understand a simple command



Too many apps – Manuals do not fit in a glass



Solution (IAR-MAP) : AI based AR/VR/MR Platform

Industrial XR – Smart Factory / Digital Twin

Augmented Knowledge has the Solution for Integrating Augmented Reality (new technology) with B2B information (legacy systems) – Next Generation Technical Manuals for the era of Smart Glass



XR

AI



LEGACY INFORMATION

SCM

Technical Documents

2D/3D

Video

Real time operational data

MES

IOT DATA

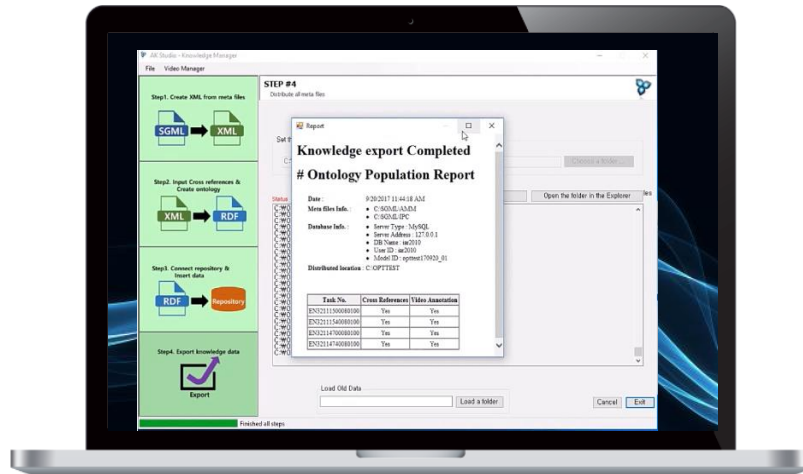
Solution (IAR-MAP) : AI based AR/VR/MR Platform

AR/VR/MR Contents Creator

Create AR/VR/MR contents in effective way and connect information with AR/VR/MR contents

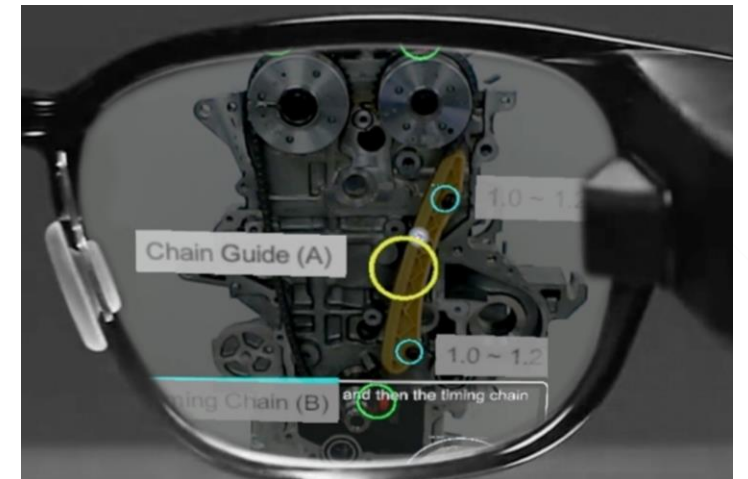
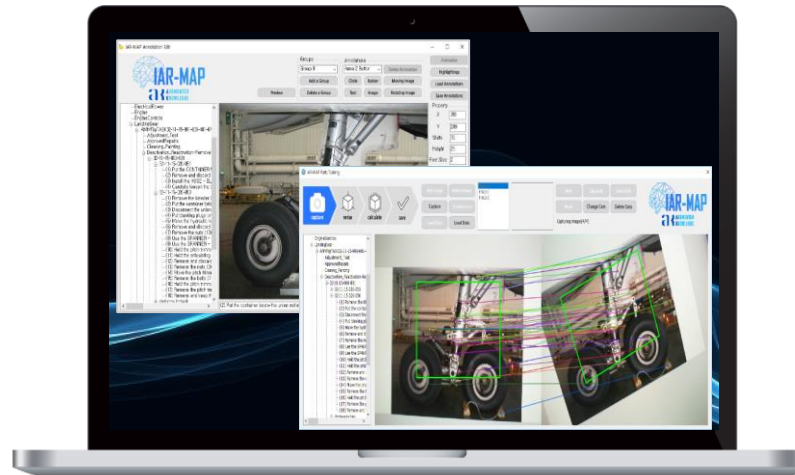
Knowledge Manager

Converts technical manuals (SGML format) into knowledge graph



AK Viewer

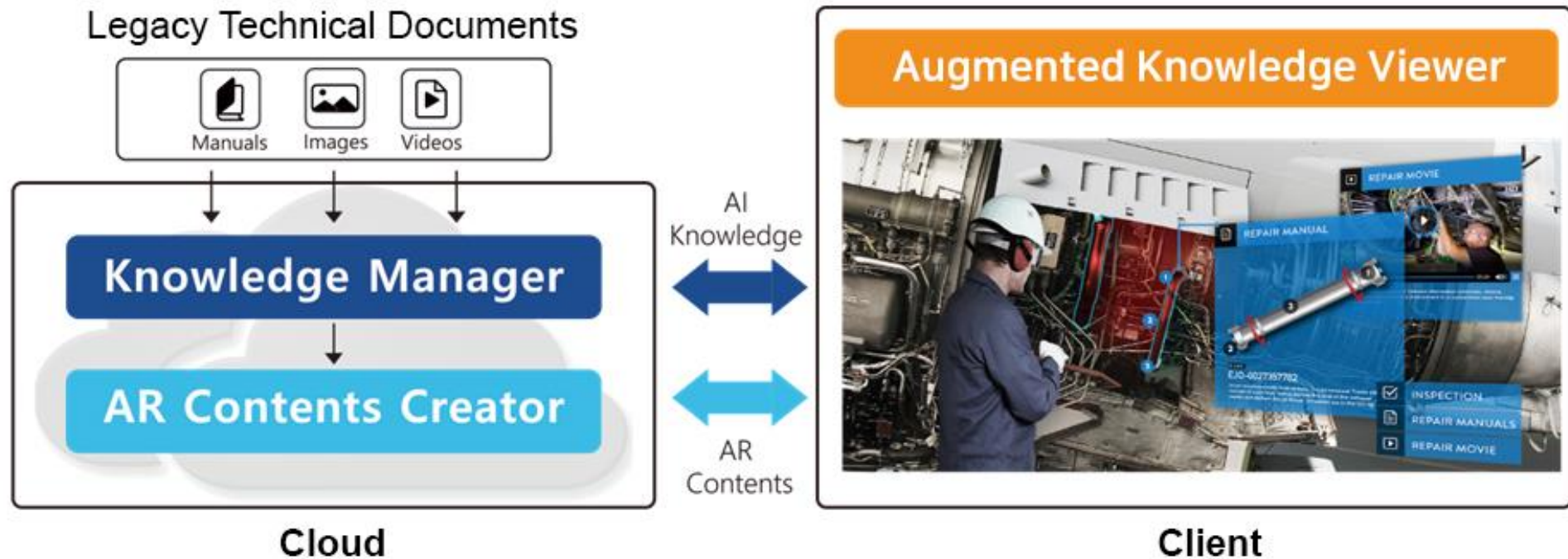
Pushes information automatically from server/cloud and overlays AR/MR contents across parts through AR/MR device.



Solution (IAR-MAP) : AI based AR/VR/MR Platform

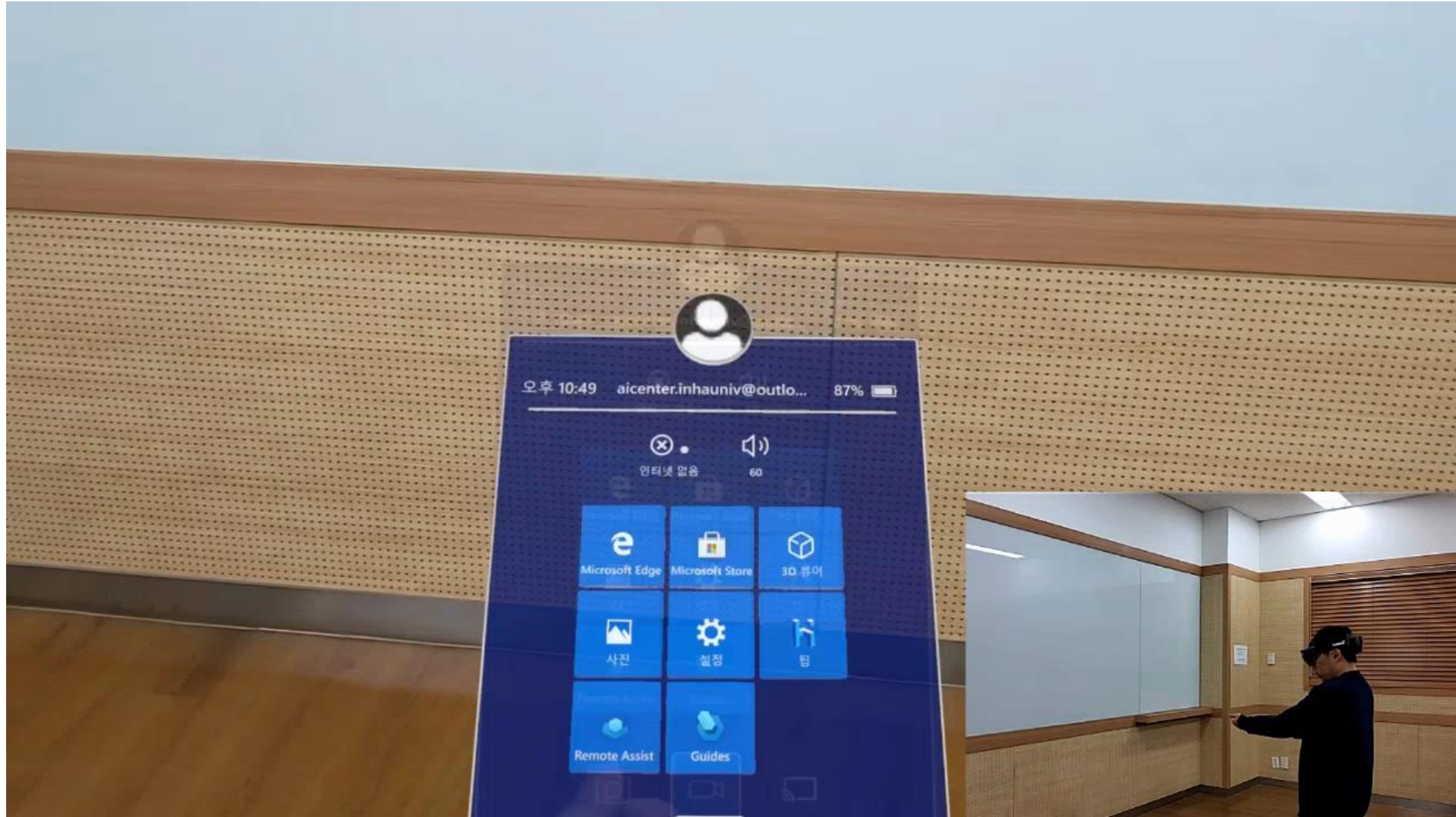
Unified framework for augmented reality and knowledge

Patent: 1 US("Unifying Augmented Reality and Big Data"), 1 EU, 3 KR



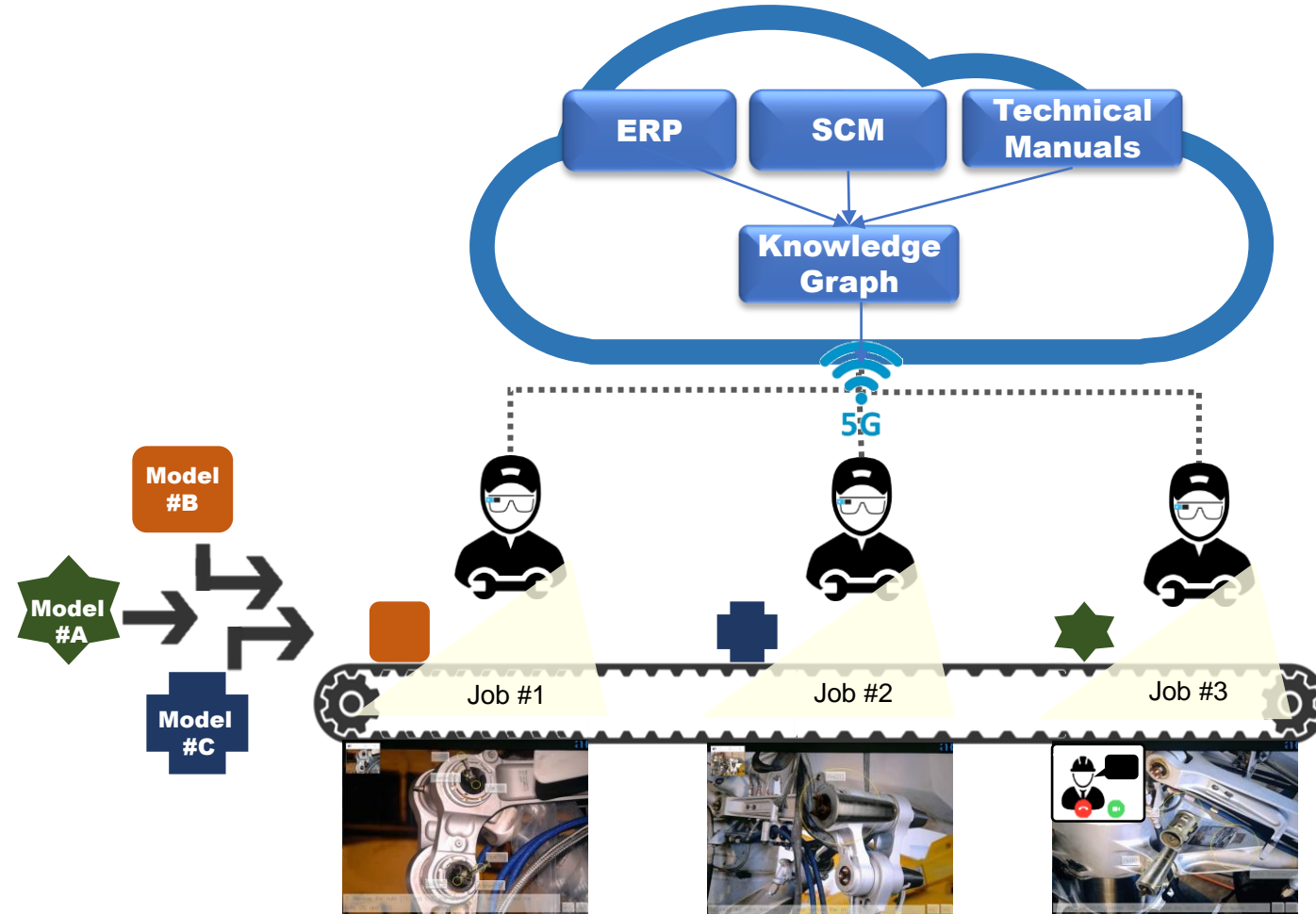
AI Knowledge + AR Contents → Augmented Knowledge

Platform Demo (MR1) – Aircraft Maintenance with HoloLens



Solution (IAR-MAP) : AI based AR/VR/MR Platform

Supervisor manages and assigns job to each worker through IAR Server/Cloud –
Technical manuals and instructions are overlaid automatically according to each technician job



Solution (IAR-MAP) : AI based AR/VR/MR Platform

Industrial AR/MR Manual Guide and Remote Maintenance Support

- Working situation video sharing between on-site worker and remote expert
- Automatically overlay and share manual (AR/VR/MR Guide) according to work situation
- Support AR/VR/MR glass, tablet, smartphone (Android) according to customers working environment



Machine/
Equipment



Augmented
Knowledge
Remote

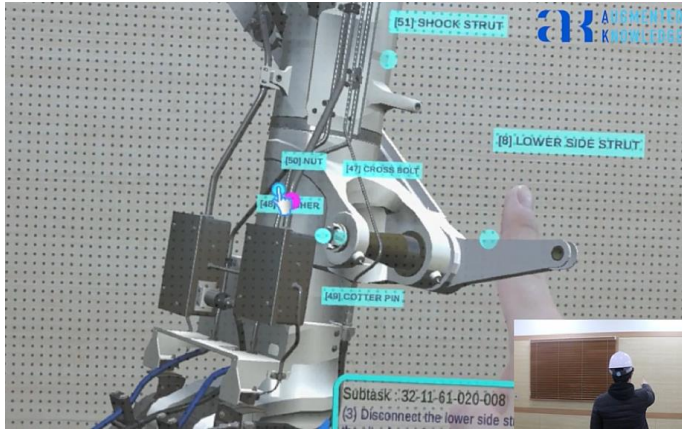


AR/VR/MR Guide

- AR/VR/MR Guide for Preventive Maintenance
- AR/MR Guide for Fault Response
- Working Situation Remote Sharing
- Real Time Remote Support
- Education/Training

On-site Work Efficiency
Reduced Expert's Business Trip Expense,
Reduced Education/Training Cost
Reduced Time/Cost

Value Proposition



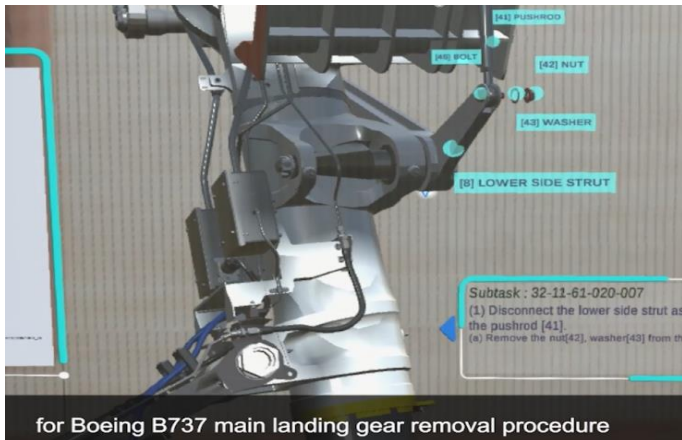
< AR/VR/MR Contents for Aviation Maintenance Education >



< Dissemble of Ball Bearing Machinery >



< AR for Heavy Equipment Engine Trouble Shooting >



for Boeing B737 main landing gear removal procedure

B737 Landing Gear Contents for eXtended Reality

On sale



B737 Engine Contents for eXtended Reality

1H 2021



Digital Twin (B737)

In Progress

Growth Potential

Price of B737

Worldwide B737

MRO/Education

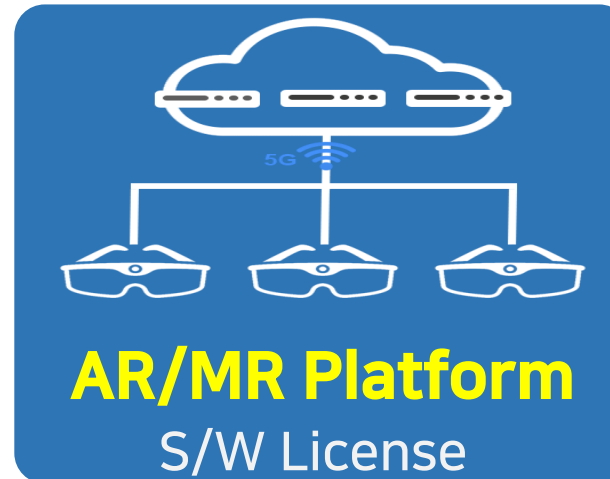


**B737 unit price: USD 100 Mil.
Total: USD 100 Mil.**

**Worldwide B737: 10,000 Airplanes
Total: USD 1 Tri.**

**MRO/Education: 10%
Total: USD 100 Bil.**

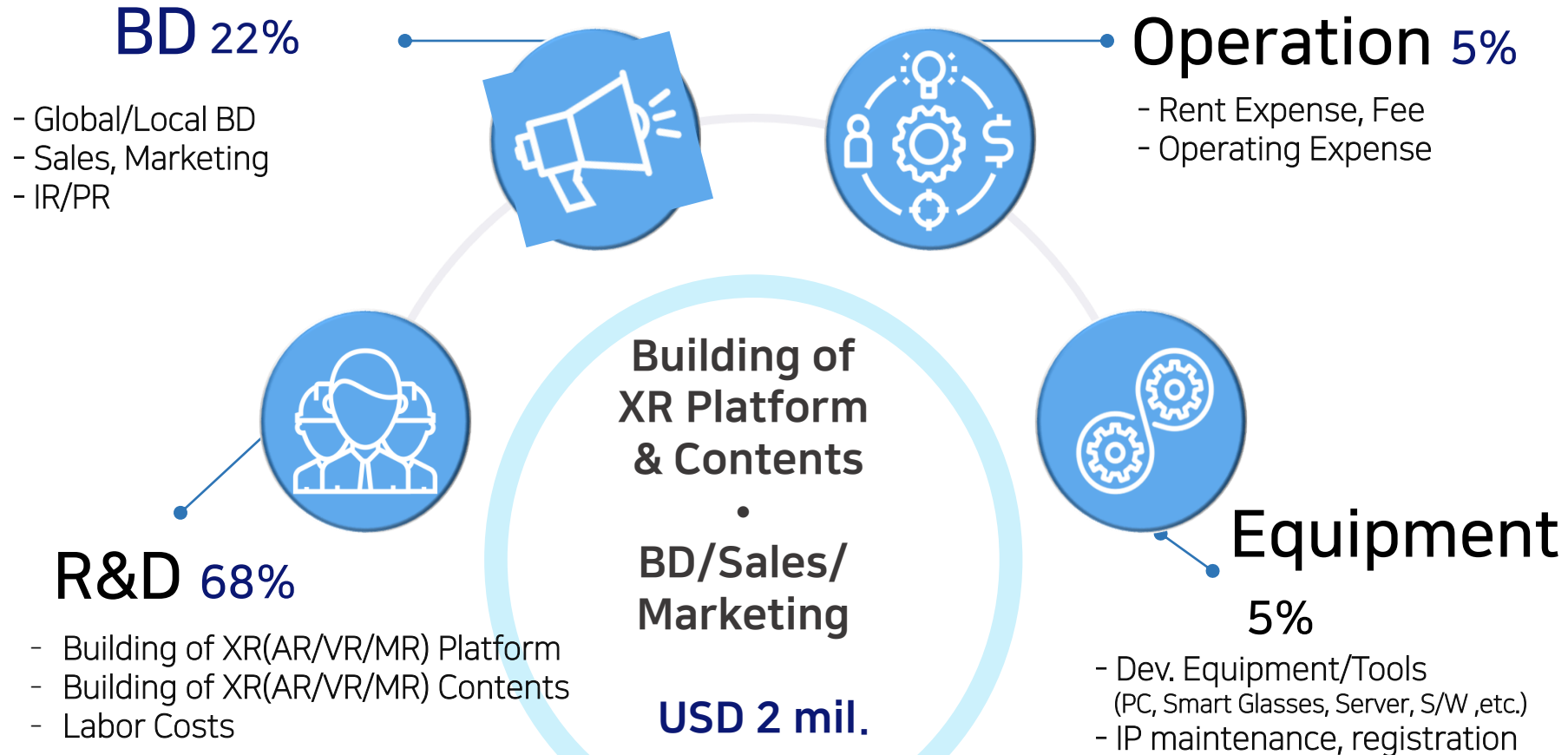
Go-to-Market(BM) & Current Status



- Aviation Maintenance Education/Training
- Aviation Maintenance Airlines/MRO/Manufacturer
- General Industries (Smart Factory)



Ask: \$2 mil. Seed(Series A)



Depending on Exchange Rate

THANK YOU



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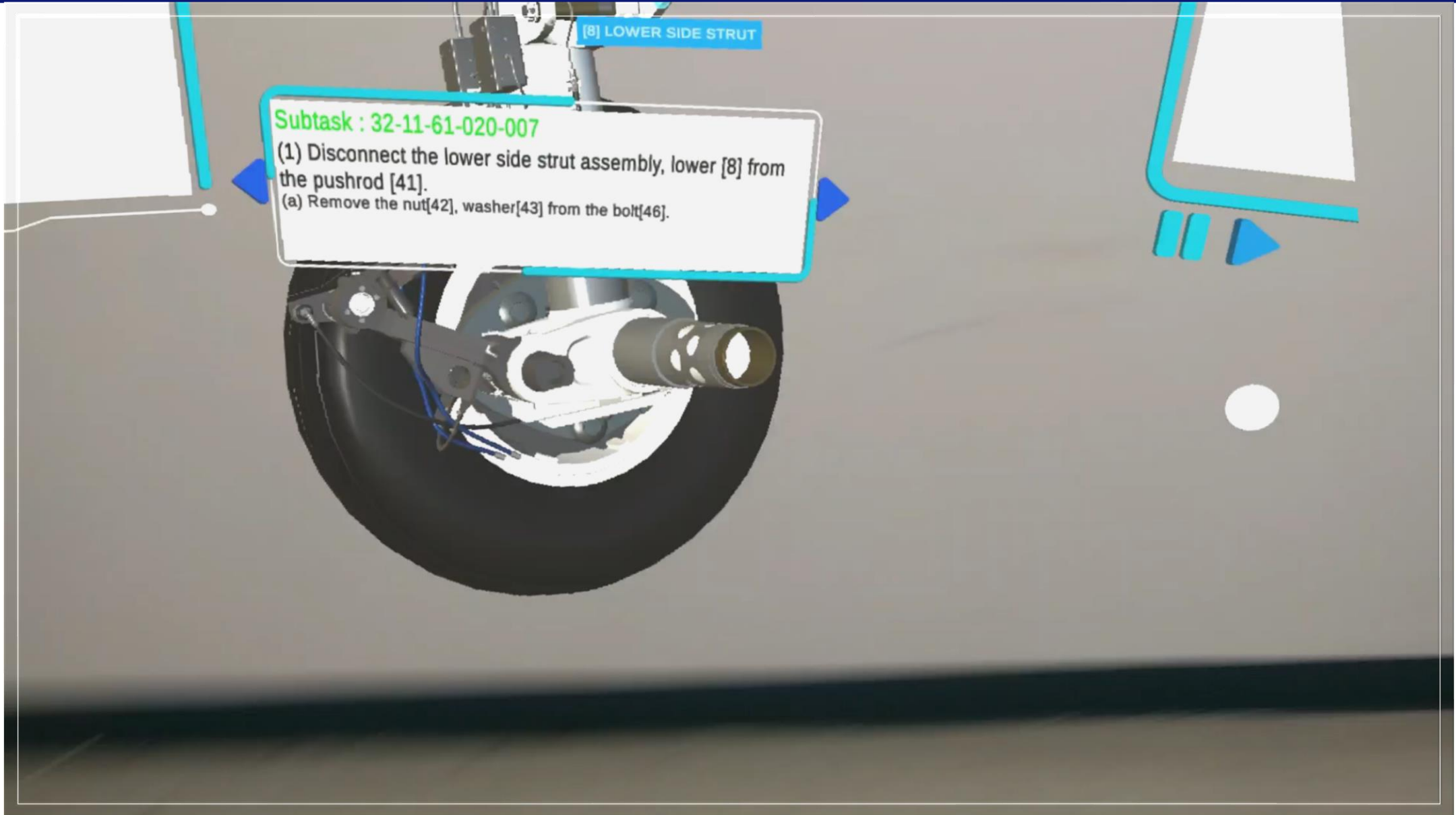
Appendix

Additional Demos(3)

Additional Videos(4)

F/S Summary(1)

Platform Demo (MR2) – Aircraft Maintenance with HoloLens



Platform Demo (AR) – Aircraft Maintenance with Tablet



Platform Demo (VR) – Aircraft Maintenance with VIVE



Videos – Elevator Speech, Interview, AD for IR/BD/PR

1. Elevator Speech for IR: <https://youtu.be/XCQ1iDk4Kvw>
2. Interview for IR & BD: https://youtu.be/7O_9bacAVDk
3. Advertisement for PR: <https://youtu.be/bUuQssBRe4w>
4. AD and Inter. for IR/BD/PR: https://youtu.be/xT9l98-9_Wc

Summary of Financial Statement

(Unit: 1,000 USD)

Item	2020	2019	YOY	YOY	Note
Revenue	212	25	187	748%	
Gross Profit	194	25	169	676%	
Operating Expense	632	231	401	174%	
Operating Profit	(437)	(206)	(231)	112%	
Non-operating Income	277	377	(100)		
Non-operating Expense	6	6	-	-	
Before Tax Income	(166)	125	(291)		
Corporate Tax	-	-	-	-	
Net Income	(166)	125	(291)		

Depending on Final Closing and Exchange Rate

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