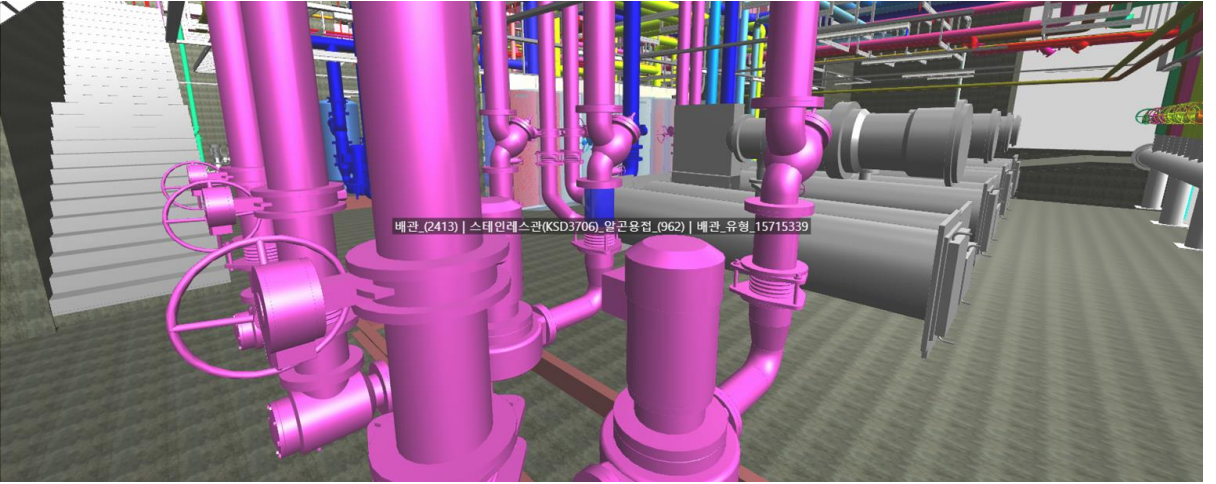




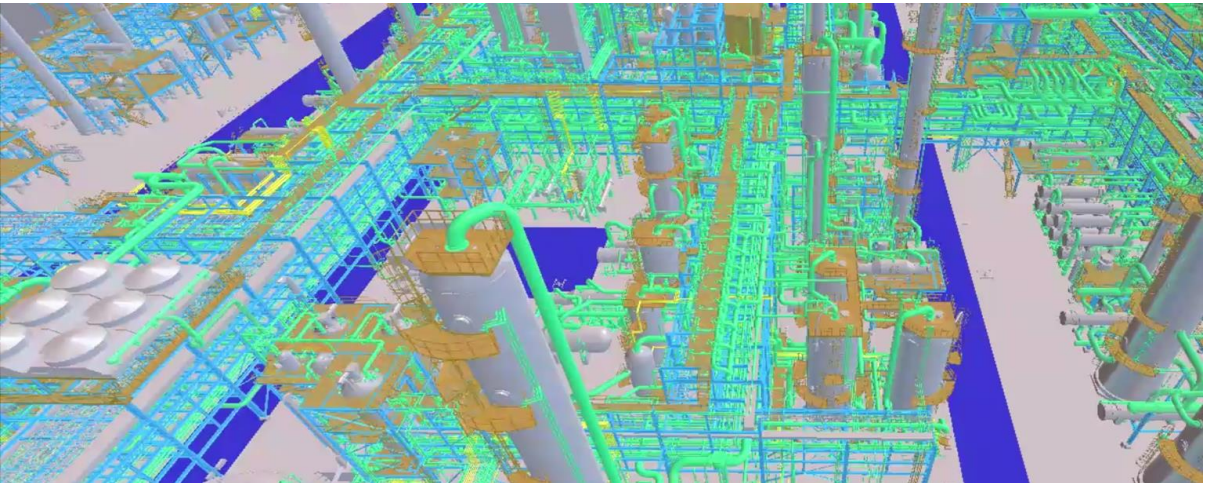
Company Profile





“  **conworth** offers unprecedented 3D solutions for the built world ”

Conworth offers solutions that Unreal and Omniverse cannot provide!



conworth offers unprecedented 3D solutions

From March 22 to 28, 2025, a wildfire swept through Gyeongsangbuk-do and destroyed Yeonsujeon Hall of Gounsa Temple in Uiseong (Treasure No. 2078).

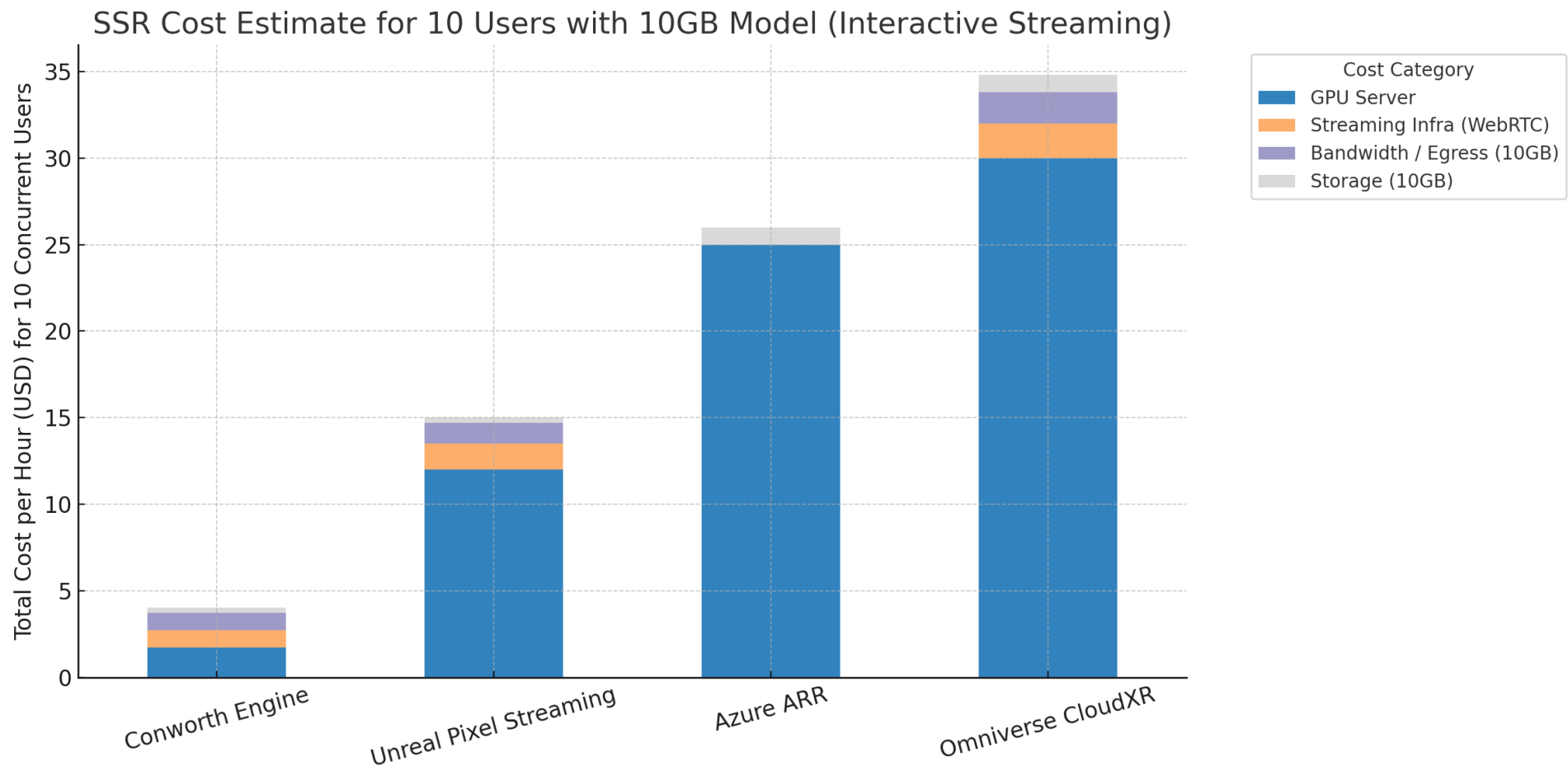
Before the wildfire damage, high-fidelity 3D data had already been created through the Cultural Heritage Administration's digital archiving project.

Thanks to Conworth's solution, you can directly experience and explore this invaluable heritage in 3D.



<https://heagle2.conworth.net>

Highlight | Conworth Technology

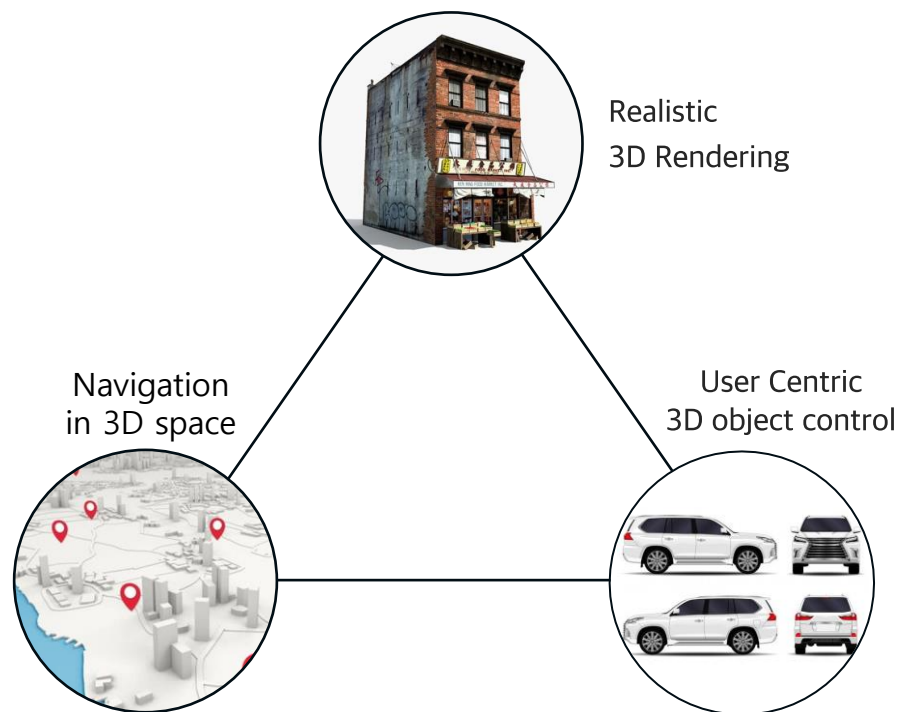


Conworth Engine is 4-10 times more cost-efficient and outperforms world-renowned solutions such as Unreal Pixel Streaming, Omniverse CloudXR, and Azure ARR.

Background | 3D Virtualization

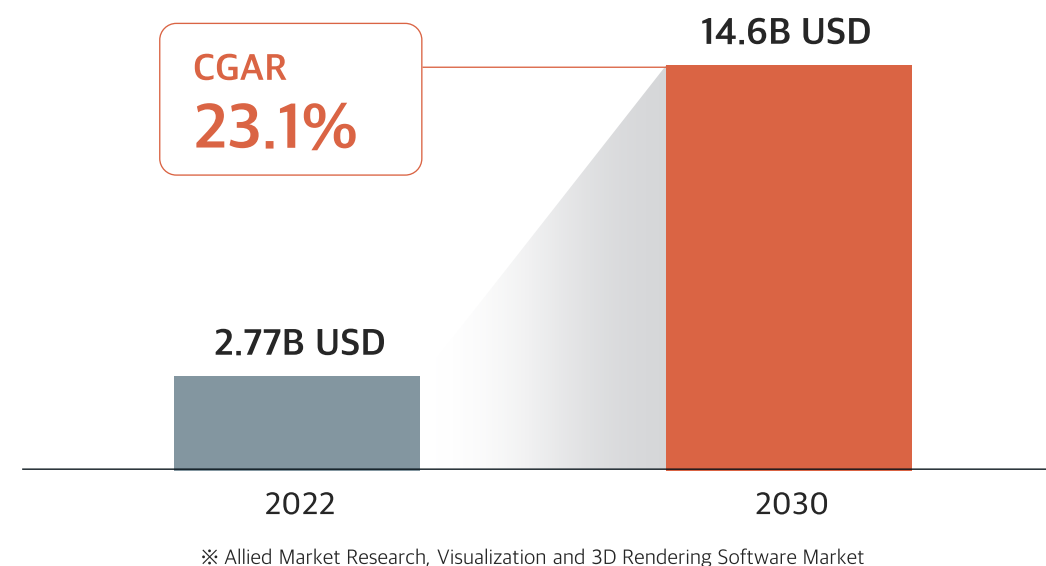
Market Needs Increasing

3D Virtualization?



- 3D virtualization is a core technology for digital twin, metaverse, and 3D design. **Unsuccessful digital twin and metaverse are due to limitation in existing 3D virtualization technology.**

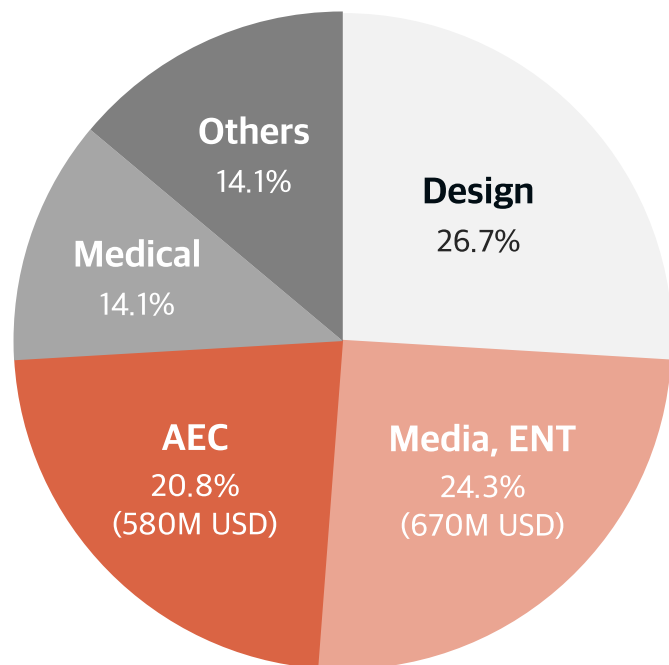
3D Virtualization and Rendering Market



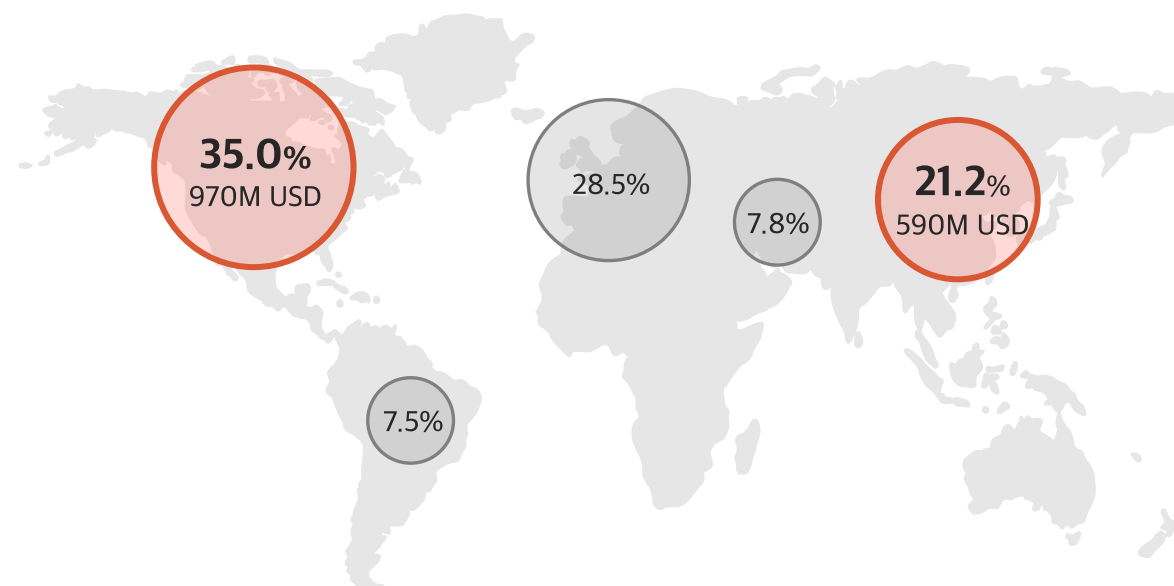
- A variety of application domains adopt 3D solutions with advent of more 3D content, better computing power, and wider network bandwidth

Target Market | Size

Global 3D solution Market Size (Domains)



Global 3D solution Market Size (Regions)



* Total 3D solution market size: 2.77 Bil USD

* Allied Market Research, Visualization and 3D Rendering Software Market, 2021

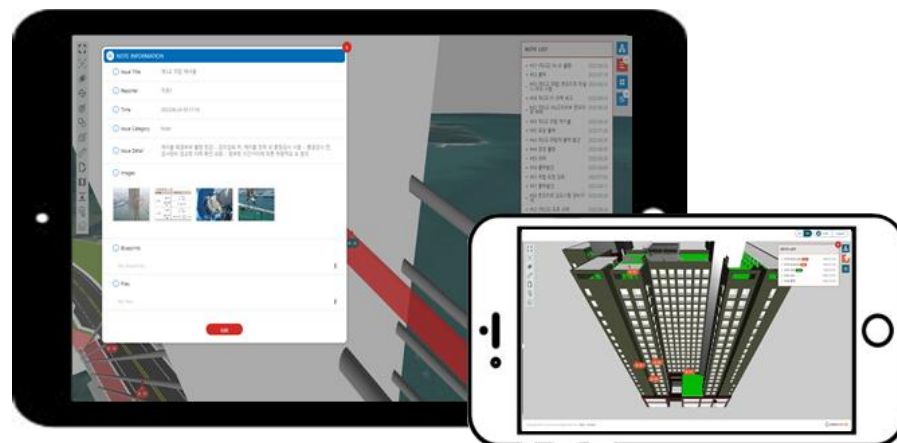
Problems & Solutions | Market Questions



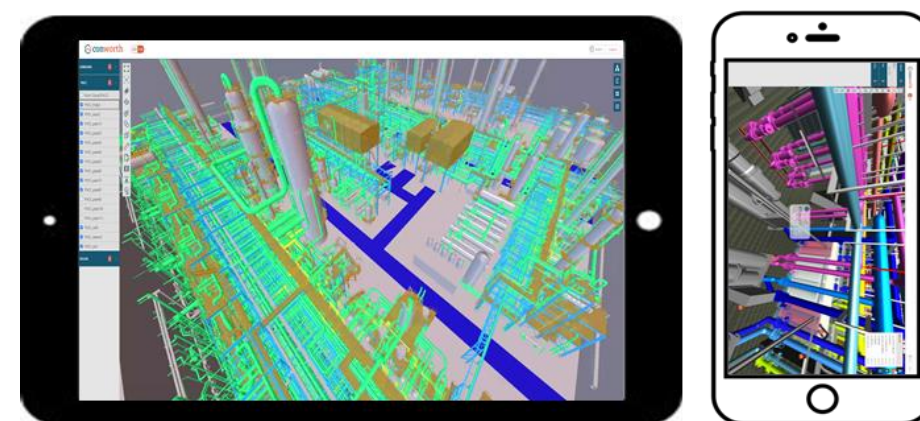
How can companies enable access to an automotive smart factory's digital twin (8Gb) from anywhere, at any time?



Is it possible to view the intricate 3D structure and detailed paintings in a temple (21Gb) on a smartphone?



How can collaborate efficiently using a 3D virtual space of the site (10Gb) via smartphones during the project?



Is it possible to effectively manage on-site facilities of a petrochemical plant using a digital twin (6.5Gb) on a tablet?

Problems & Solutions | How To Solve?

For efficient server operations and effective 3D graphics

3D Data/Rendering Engine

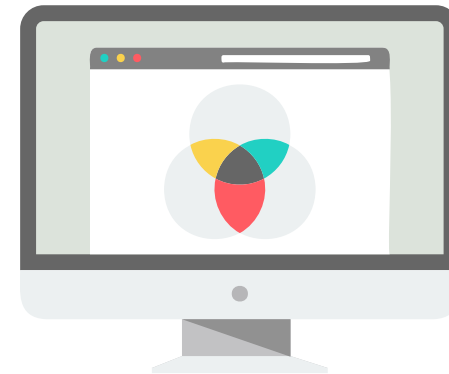
Server

High-performance scalable server operations

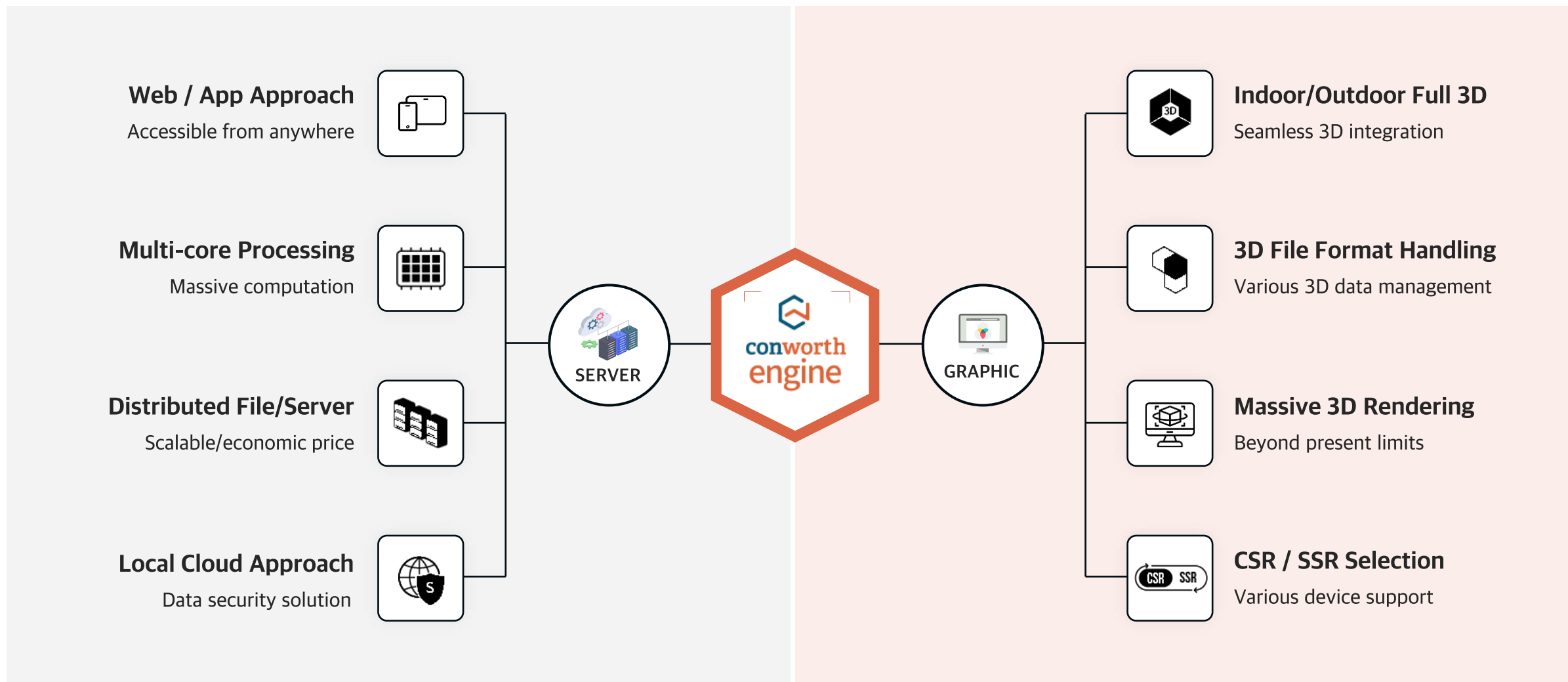


Graphic

High-quality rendering for massive 3D data



Problems & Solutions | Conworth Engine



Competition | Conworth Engine Benchmark Test

Comparison of Rendering Quality with World-class Graphic Engines



Competition | Differentiation

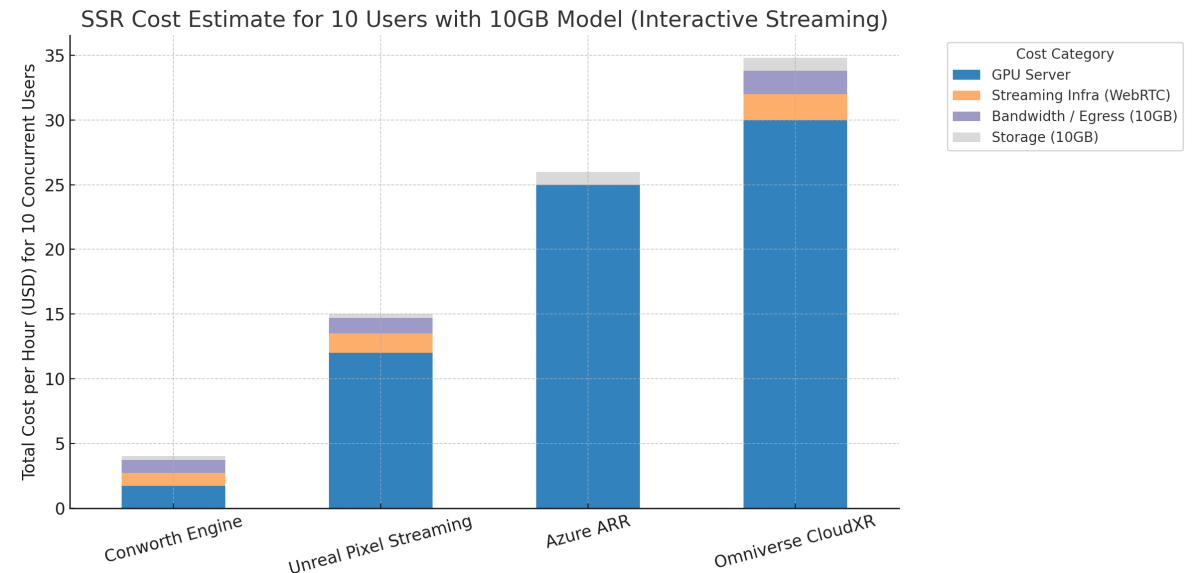
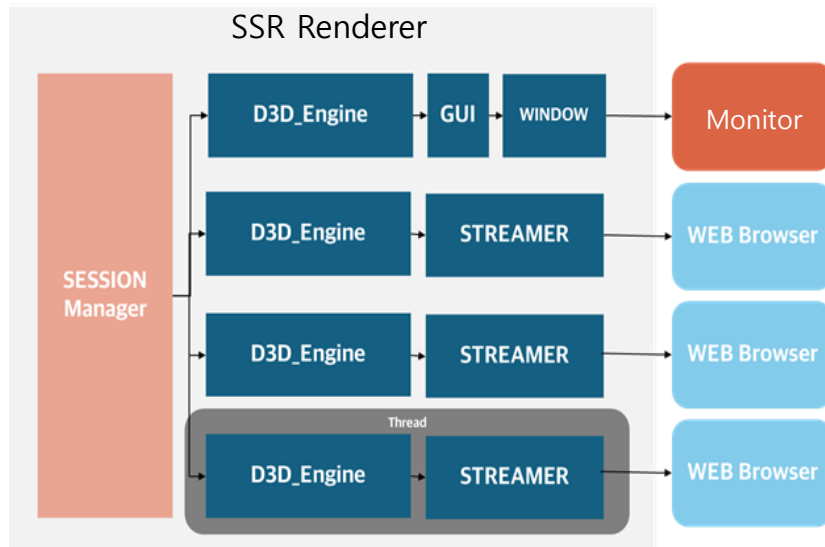
Key Differentiators of Conworth Engine

1. Multi-threaded Architecture for Multi-User Access

- Designed and developed with a multi-threaded architecture, enabling parallel processing of multiple user requests within a single server.
- This allows multiple users to share a single GPU instance simultaneously, maximizing hardware utilization.

2. Optimized Resource Allocation

- Dynamically allocates GPU and CPU resources based on system load, minimizing idle usage and reducing unnecessary infrastructure costs.
- Compared to existing cloud-based SSR services such as Unreal Pixel Streaming, Azure ARR, and Omniverse CloudXR, the Conworth Engine achieves 4 to 10 times greater cost efficiency.



Competition | Differentiation

Key Differentiators of Conworth Engine

- 3. Specialized for Ultra-Large 3D Data Handling
 - Benchmark tests show the Conworth Engine outperforms major international rendering solutions in processing heavy 3D datasets

Test PC Spec: AMD Ryzen 5 5600X 6-core / NVIDIA GeForce RTX 3090 TI / 64GB RAM

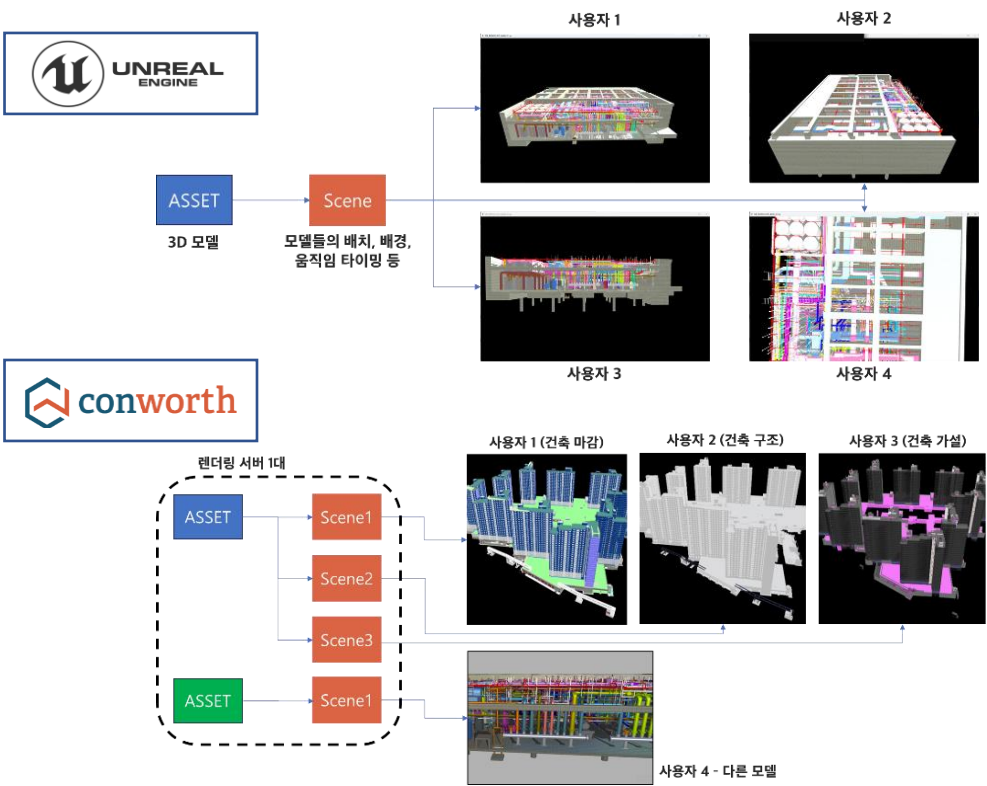
Data \ Other Products					KHRONOS (glTF Viewewr)
FAB (5.16Gb, 5.3M Polygons, 2 Texture)	○	○	○	X	○
Petrochemical Plant (6.53Gb, 144.3M Polygons, 0 Texture)	○	X (No response)	X	X	○
Cultural Heritage (21.3Gb, 151.5M Polygons, 7 Texture)	○	X (Buffer file size issue)	X	X	X (No response)
Architectural Landmark (743Mb, 1.9M Polygons, 2275 Texture)	○	○ (Loading takes 1 hour)	X	○	○

- 4. Built-in Integrated Rendering Pipeline
 - Conworth Engine is designed with an internally integrated rendering pipeline, eliminating the need for external renderers or complex API calls.
 - Its lightweight and modular architecture enables rapid customization to meet client-specific requirements, offering superior operational efficiency and flexibility in deployment.

Competition | Conworth Engine Benchmark Test

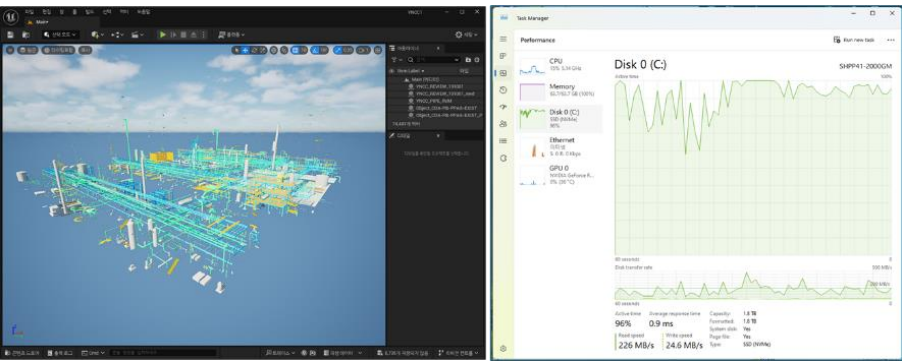
Comparison of Rendering Performance with Unreal

(1) Multi-scene viewing in SSR



Conworth Engine enables support for multiple scenes within a single renderer through its proprietary multi-threading and video memory sharing technologies

(2) Efficiency in Multi-user access



접속자 수	렌더링 속도	네트워크 대역	CPU 사용	VRAM
1	47FPS	1.8Mbps	4%	10.6GB
2	29FPS	1.1Mbps	5%	11.8GB
3	22FPS	1.1Mbps	7%	13.0GB
4	19FPS	1.5Mbps	5%	14.2GB
5	8FPS	1.6Mbps	4%	15.5GB
6	6FPS	1.6Mbps	5%	16.7GB
7	9FPS	1.6Mbps	6%	18.8GB

For petrochemical plant BIM data (5.83 GB, 144M polygons), Unreal failed to convert the model at full detail and consumed all available memory even for a single user with a low-detail version. In contrast, the Conworth Engine successfully streams full-detail data smoothly to multiple users.

Business Model | Three Business Models based on Conworth Engine

Engine (On-Premise / API)



On-Premise

- Integrated 3D Engine within a Unified Software Platform
- Supports Modification & Customization

API Licensing

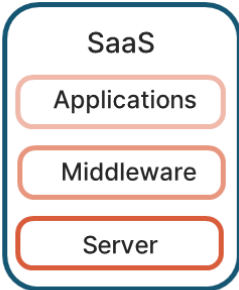
- API-Based Licensing Model
- Enables Building New Software Using Conworth Engine

Key Strengths

- Web/App Access to Large-Scale 3D Data
- Rendering Quality Comparable to Commercial Engines (Unity/Unreal)
- Flexible Deployment Without Lock-In to Specific Cloud Platforms (e.g., Omniverse)

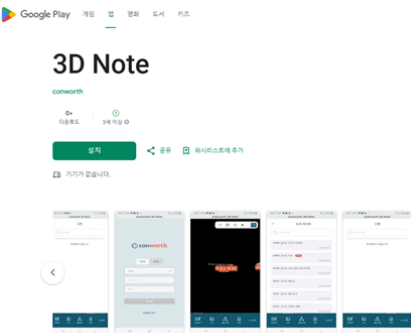
SaaS Solution (3D Note)

APP/Web based 3D Collaboration Tool



Subscription-Based Service Model

- Tiered Pricing by Concurrent Users & Data Complexity
- Optional Custom Features (e.g., Drawing/Quantity Integration)
- Secure On-Premise Deployment Available for Confidential Data



SI Projects & Eagle Series

Construction Site Platform Immersive Visualization

- 3D Site Management
- Design-Construction Consistency Check Solution
- Realistic 3D Visualization
- Web-Based Large-Scale 3D Viewing



Robot Solutions

- Quadruped Robot (SPOT) Monitoring System
- Facility Safety Management with Robots/IoT

Ultra-Large Visualization

- City-Scale 3D Visualization Solutions
- TB-Scale Point Cloud Visualization Platform

Conworth operates three core business models based on its proprietary large-scale 3D rendering engine (Conworth Engine):
 (1) On-Premise licensing of Conworth Engine; (2) SaaS solution (Conworth 3D Note); (3) SI-based project deployments (Eagle series)

Business Model | PRODUCTS

1. 3D Engine – Application Cases

H Company Smart Factory Digital Twin



Unity-based 3D Smart Factory Control Solution

- Prob** Operates only in the control room due to high device requirements
- Prob** Inconvenient to use as a high-resource standalone software
- Prob** Large 3D data restricts operation to wired network environments only

Multi-User SSR (Conworth Engine) Based Digital Twin



Conworth Engine based 3D Smart Factory Control Solution

- Sol** Supports multi-user access based on proprietary GPU sharing technology
- Sol** Operates on web/app with 3D rendering regardless of device performance
- Sol** Enables real-time control from anywhere with wireless network connectivity

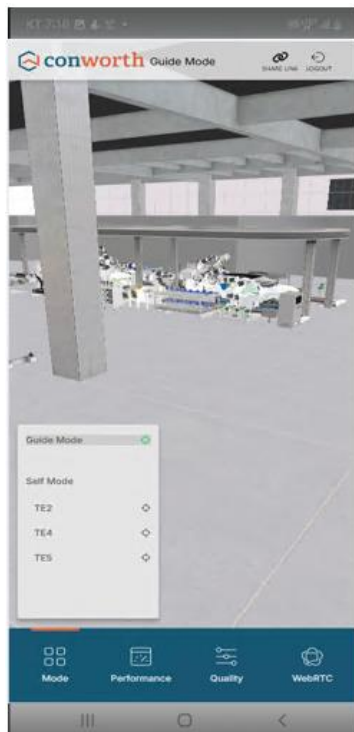
Business Model | PRODUCTS

1. 3D Engine – Application Cases

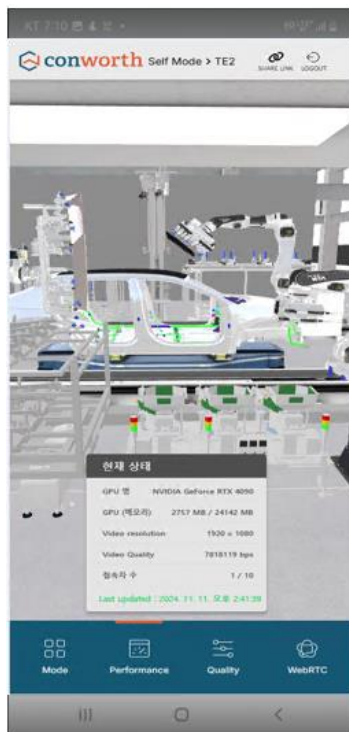
(<https://www.youtube.com/watch?v=j1zvy38Sq0M>)

Multi-User SSR (Conworth Engine) Based Digital Twin

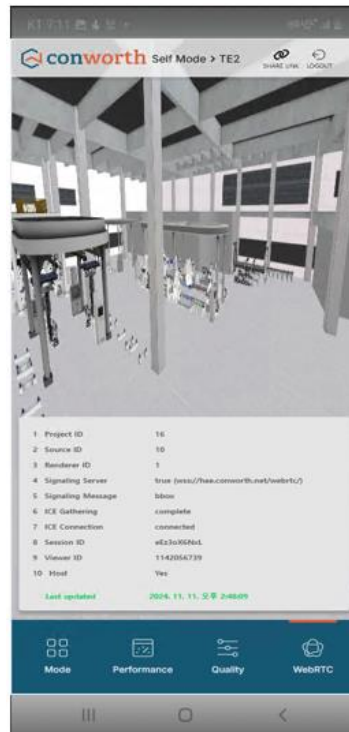
- Process and cooperative robot animation for digital twining
- Visualization on mobile device
- Different mode(section) supports (TE2, TE3, TE5 etc.)



Mode selection



Performance check



WebRTC condition



TE2



TE5

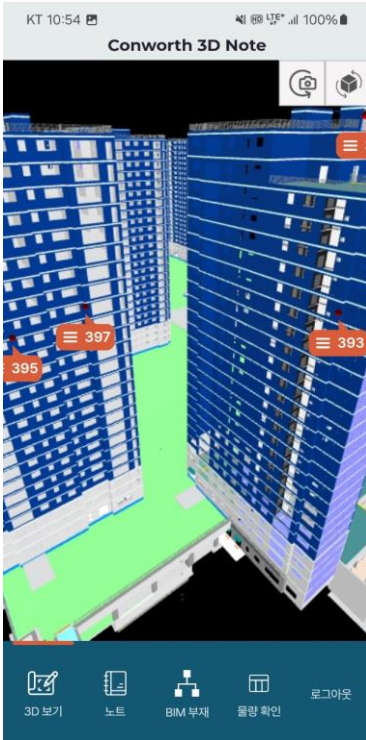
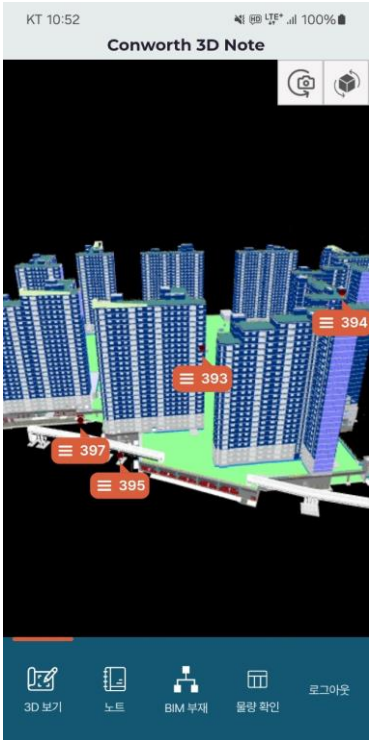
Business Model | PRODUCTS

2. Conworth 3D Note (SaaS)

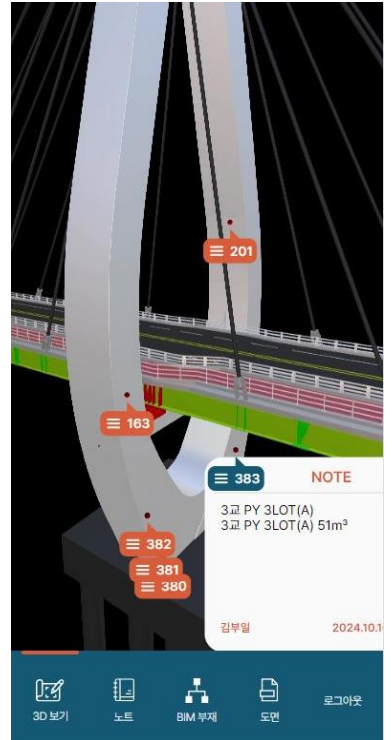
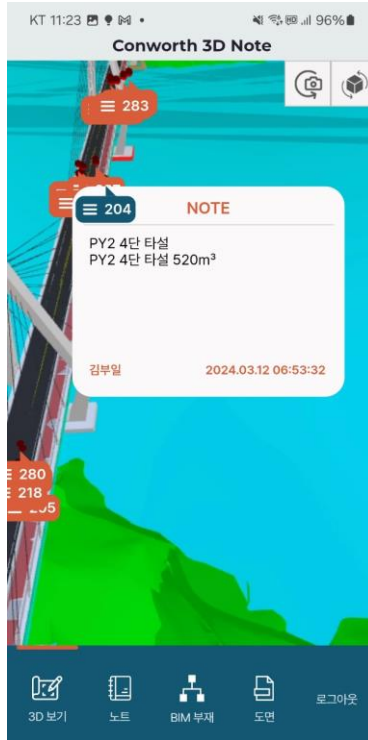


1등급
GS Certificate No. 25-0295
Conworth 3DNote V1.0

Conworth 3D Note (App) - Provides 3D collaboration functionality by accessing BIM data using a smartphone
(<https://www.youtube.com/watch?v=e0s1W0fW3IE>)



Apartment complex construction case



Bridge and road infrastructure construction case

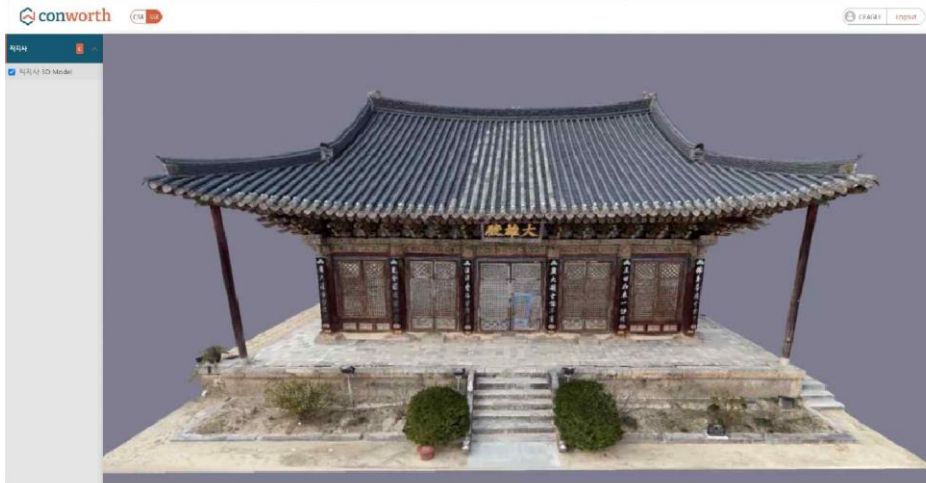
Business Model | PRODUCTS

3. Business Solutions (SI)



GS Certificate No. 25-0293
Conworth H-Eagle V1.0

- H-Eagle : High-quality 3D contents visualization (<https://youtu.be/BDpK9j4GBd4?si=YI9iGsYGZqOrqDA4>)
(<https://youtu.be/zOxCgElhilM?si=eVIQbvWQKvbqFxSp> / <https://youtu.be/HTI-VAEwkda?si=JppSPdRayoD5hwdz>)

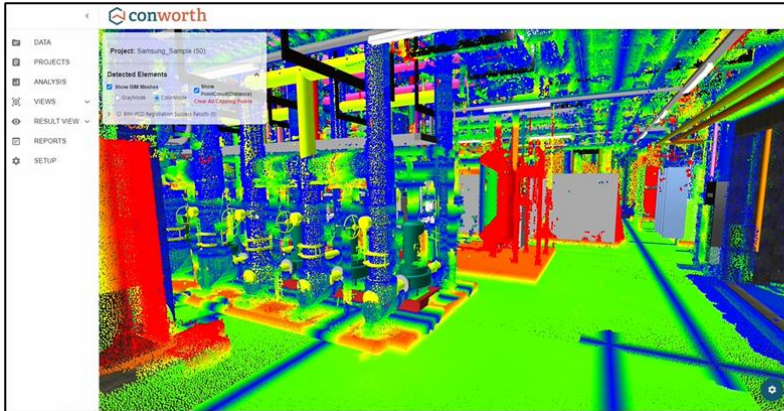


Gounsa Temple's Yeonsujeon,
lost in the 2025 wildfire in North Gyeongsang

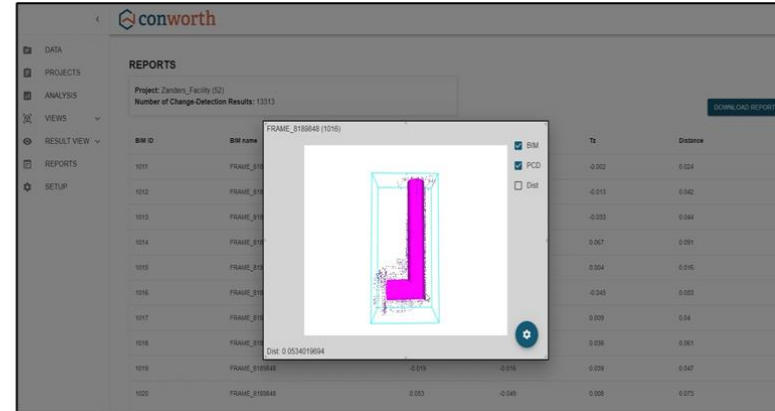
Business Model | PRODUCTS

3. Business Solutions (SI)

- Design-Construction Consistency Analysis solution: enabling comparative analysis between BIM models and large-scale point cloud data (https://youtu.be/Xz4XagYHj-A?si=Q9c6PaLop5sc_PmM)

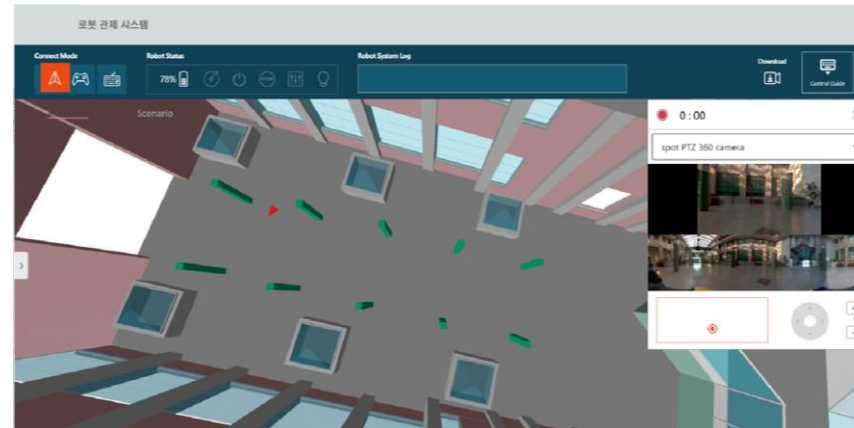
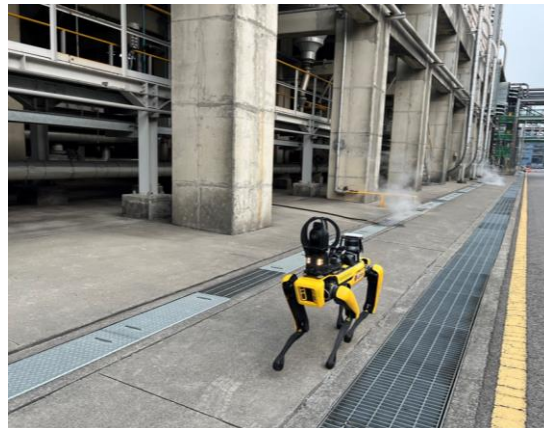


Overall Consistency Analysis Result

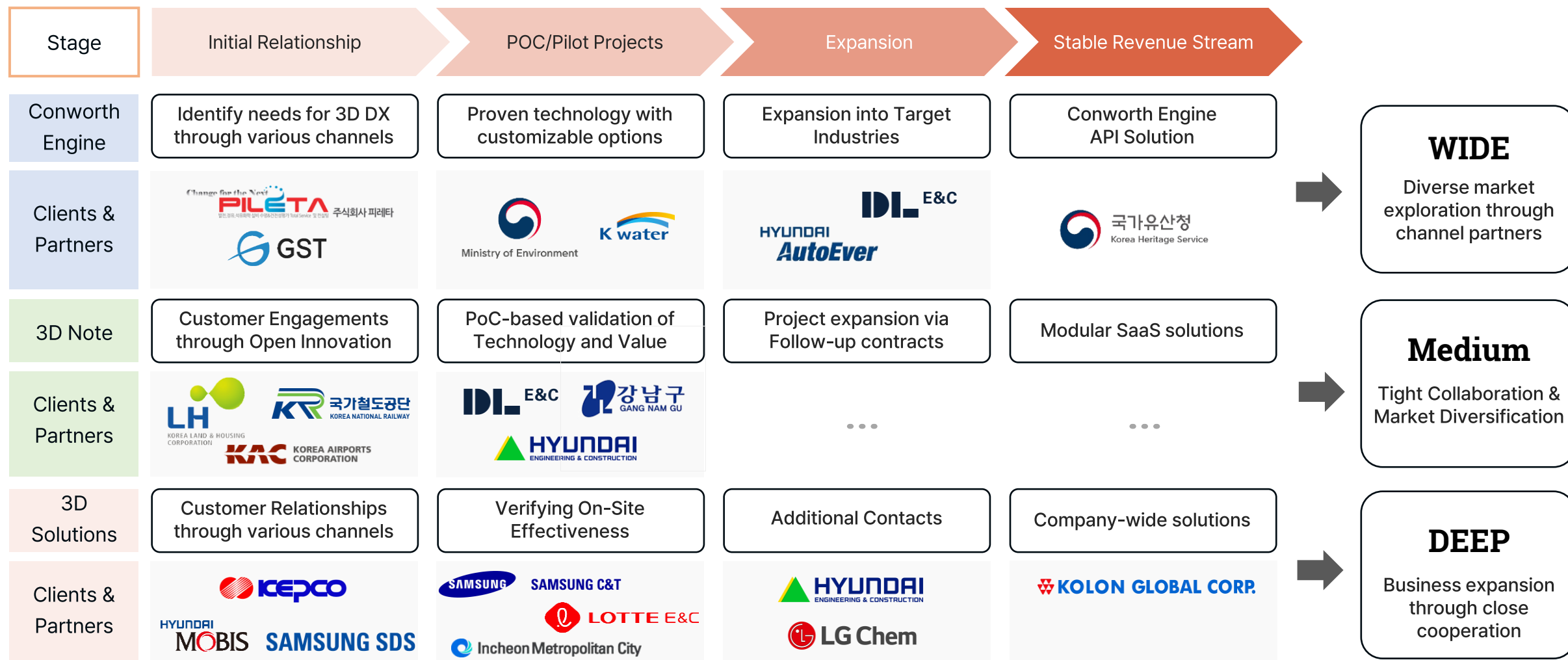


MEP Component-Level Analysis Result

- R-Eagle: Quadruped robot (Boston Dynamics SPOT) based Robot Patrol & Control System for site management (<https://youtu.be/rElI8uHo11g?si=9pUYFiJLckv-VwTv>)



Market Strategy | Go-to-Market Strategy & Current Progress



Team | Core Team Members

Founder



CEO

- Professor, Yonsei University
- CTO & Partner, Forest One, Inc. (later Lanworth Inc.)
- Ph.D. University of Wisconsin-Madison

Dr. Joon Heo



Thomson Reuters Acquires Lanworth

On August 17, 2011, Thomson Reuters acquired internet software and services company Lanworth from The Westervelt

Acquisition Highlights

- This is Thomson Reuters' 1st transaction in the Internet Software and Services sector.
- This is Thomson Reuters' 22nd transaction in the United States.
- This is Thomson Reuters' 3rd transaction in Illinois.

M&A DEAL SUMMARY	
Date	2011-08-17
Target	Lanworth
Sector	Internet Software and Services
Buyer(s)	Thomson Reuters
Sellers(s)	The Westervelt
Deal Type	Divestiture
Advisor(s)	InterOcean Advisors (Financial)

- The CEO has startup experience in the United States (Forest One, Inc.)
- Possesses networks related to overseas VC as well as potential clients
- Core team consists of six Ph.D. holders with world-class expertise in 3D, graphics, and server technologies.
- The company is operated with global B2B expansion from the outset.



Graphic Lead

- Professor, Konkuk University
- SIGGRAPH ASIA, XR Chair
- Researcher, Geneva University
- Ph. D. KAIST Computer Science

Dr. Hyungseok Kim



Server Lead

- Professor, Tech. University of Korea
- NCSOFT MMO Team Lead (Afterlife, Blade & Soul)
- Ph. D. KAIST Computer Science

Dr. Naihoon Jung



Sr. Graphic Engr.

- Researcher, SKKU Institute of Intelligent System
- Researcher, Stuttgart University
- Ph.D. Kyungbuk National University Computer Science

Dr. Sangok Koo



Geomatics (3D) Lead

- Sr. Engr. Northwest Geomatics (A Hexagon Company)
- Researcher, York University
- Ph.D, University of Calgary

Dr. Kiin Bang



Sr. Multimedia Engr.

- Software Engr., LG Electronics (Smart Factory Division)
- IPTV encoder Server developer, Galaxia Communications
- BS KAIST Computer Science

Jihoon Lee



Tech. Development

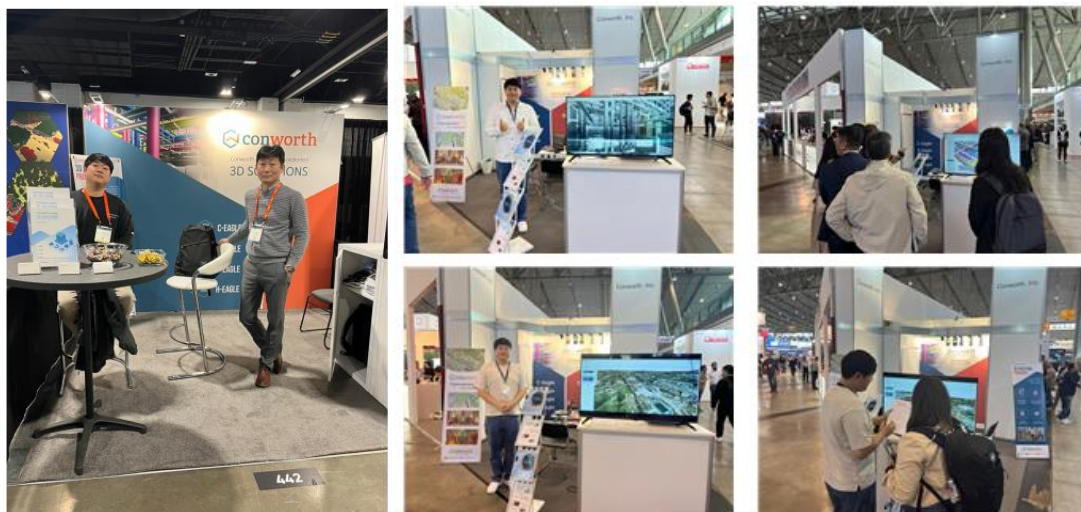
- Researcher, Hong Kong Polytech University
- Smart Construction Expert
- Ph.D. Yonsei University

Dr. Sungha Ju

Plans | Global Expansion Plan

International Market Entry

- Direct Client Contacts: Intel Fab in Ohio, Samsung Fab in Texas, DPR Innovation, etc., NNE in Denmark
- EXPO and Conferences: GeoweeK EXPO, ENR FutureTech, etc.
- Building Channel Partner Network : USIBD, Boston Dynamics, etc.
- Connecting VCs and Accelerators Network

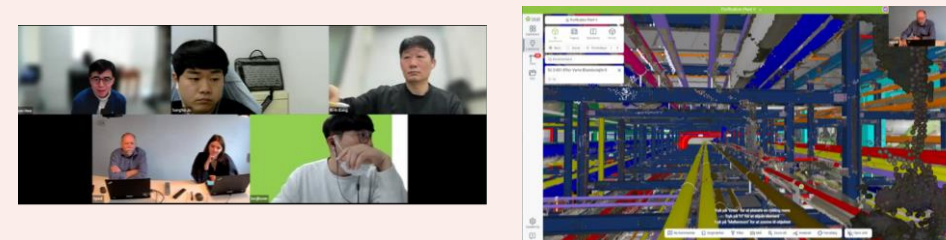


Conworth's Booth at 2024 GeoweeK EXPO and 2024 InterGEO

International Investment

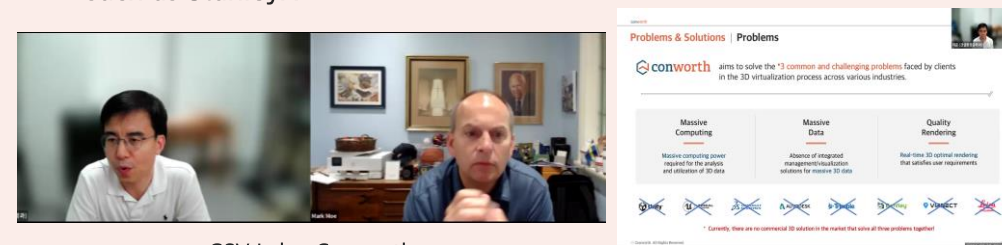
Direct Engagement with Potential Clients and Investors

- Held meetings with Novo Nordisk Engineering (NNE) in Denmark focusing on Design-Construction Discrepancy Checking



Engaging International VCs

- Held meetings with GSV Lab and engaged with private VC networks such as StanleyX



GSV Lab - Conworth

Plans | Global Expansion Plan

Global Expansion Programs

- KDB NextONE Cohort 11 (Selected July 2025)
- Conworth is leveraging the global network of KDB's Silicon Valley VC branch, as well as venture hubs in Singapore and London.
- Through this program, Conworth receives tailored consulting and global market entry support, enabling effective overseas marketing and new business opportunities.



- Global Accelerating Program (GMEP, June-November 2025)
- Conworth was selected by the Ministry of SMEs and Startups as a representative company in the Land, Infrastructure, and Transport sector for the Global Accelerating Program (GMEP).
- From November 2025, the company will participate in a four-week European expansion program based in Germany and Finland. The program supports business model validation, IR training, and local business meetings, while also creating synergies through collaboration with European networks.



- Global Corporate Collaboration Program - Microsoft Ma-Jung (April-November 2025, KRW 1.5B)
- Conworth was selected for Microsoft's Ma-Jung Program, a cloud-based B2B solution collaboration initiative. The company is currently developing SaaS versions of its solutions on Azure Cloud, aiming to directly deliver and maintain Conworth's 3D visualization solutions in global markets.

Plans | U.S. Expansion Plan

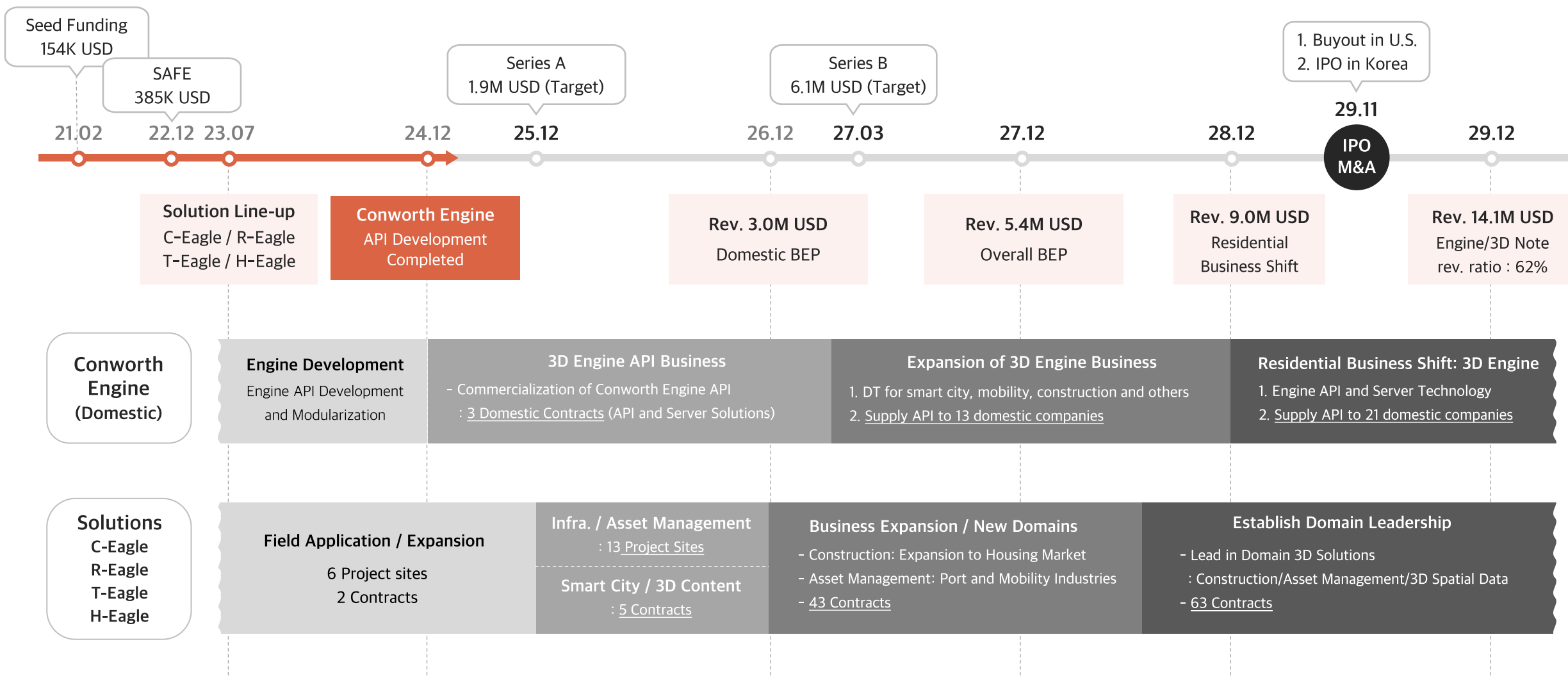
Leveraging U.S. VC, Accelerator, and Channel Partner Networks

- CEO Joon Heo brings prior experience as a CTO at a U.S. venture company and has established strong connections with multiple VCs, accelerators, potential customers, and strategic partners in the United States.
- A long-term business trip across major U.S. cities is planned to strengthen technology collaborations, fundraising opportunities, and networking.

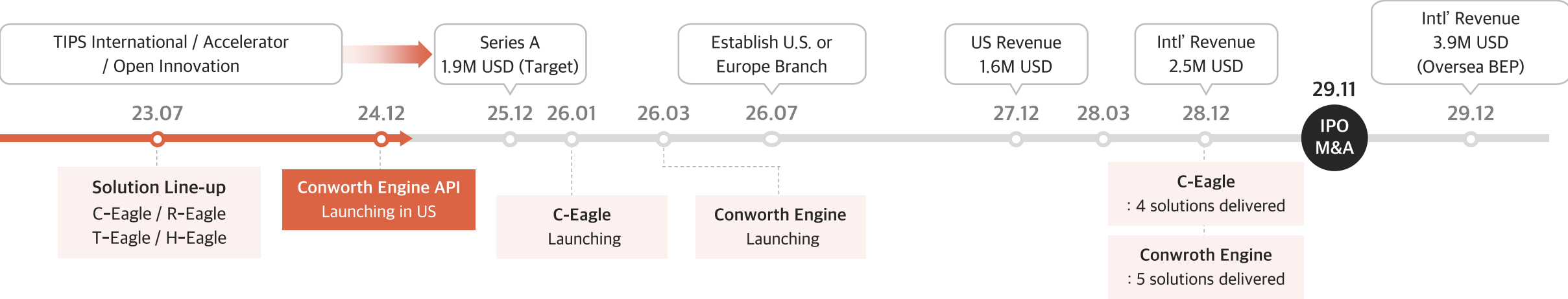
Location	Key Activities
LA area	- USC Visit (Los Angeles): Meeting with Prof. Cyrus Shahabi (Computer Science Department) - USIBD Meeting (Tustin): Meeting with the President of USIBD to explore the use of 3D Note and establish networks with construction companies - SoCal Group Meeting: Networking with key investors - DPR Meeting (Newport Beach): Discussion with the Head of Innovation on applying cutting-edge construction technologies - Peachscore CEO Meeting: Requesting support for investment and networking - Hanwha Q Cells Visit (Irvine): Exploring collaboration opportunities for solar facility management - Hyundai Engineering Visit (Santa Ana): Discussion on facility management collaboration
San Francisco area	- Plug and Play Meeting: Discussion on support opportunities. - Rivian Meeting: Discussion on applying digital twin technology to EV operations. - Stanley X Meeting: Exploration of construction technology innovation opportunities. - GSV Labs Visit: Pre-arranged presentation and investment discussions. - Meeting with Dr. Eunhwan Shin (Tech Evangelist): Promoting networking with Bay Area VCs. - Meetings with VCs and Tech Experts (Yogesh Agrawal, Shaile Verma) - Brick & Mortar Ventures, Concrete VC Meetings: Investment discussions

Location	Key Activities
Minneapolis & Chicago	- Meeting with VC Mark Moe: Discussion on potential investment opportunities. - Meeting with Prof. Yao-Yi Chiang (University of Minnesota): Research collaboration and academic networking. - Meetings with Construction, Manufacturing, and Facility Management Companies (including firms introduced by Mark Moe) - Construction: Mortenson Construction, Kraus-Anderson, McGough - Manufacturing (Medical): Boston Scientific, Medtronic, Abbott Labs - Manufacturing (Food Processing): General Mills, Land O'Lakes, Cargill
Mississippi area	- University of Southern Mississippi Visit: Meetings with Henry Jones and Clark Love to discuss potential investment opportunities (former co-founders) - VC Network Meetings: Engagement with Mississippi-based VCs (The Syndicate, Mark II Ventures Gulf Blue Navigator) - Meetings with Local Companies: Discussions with construction, manufacturing, and petroleum-related firms in Mississippi

Plans | Domestic Roadmap



Plans | U.S. Roadmap



- ① Direct Client Contacts (C-Eagle)**
- ② Connecting VC/Accelerator (CEO Personal Network)**
- ③ Channel Partners (C-Eagle / Conworth Engine API)**
- ④ Conworth Marketing Team (Solutions and Conworth Engine API)**

Intel / Samsung FAB

Design-Construction Discrepancy Checking for Quality Construction (POC and Open Innovation)

VC/Accelerators

Connecting GSV Labs, StanleyX, Plug&Play, and other VCs

Building Partner Network

Channel Partners Through Conferences/Expos (AEC Next Technology, GeoweeK)

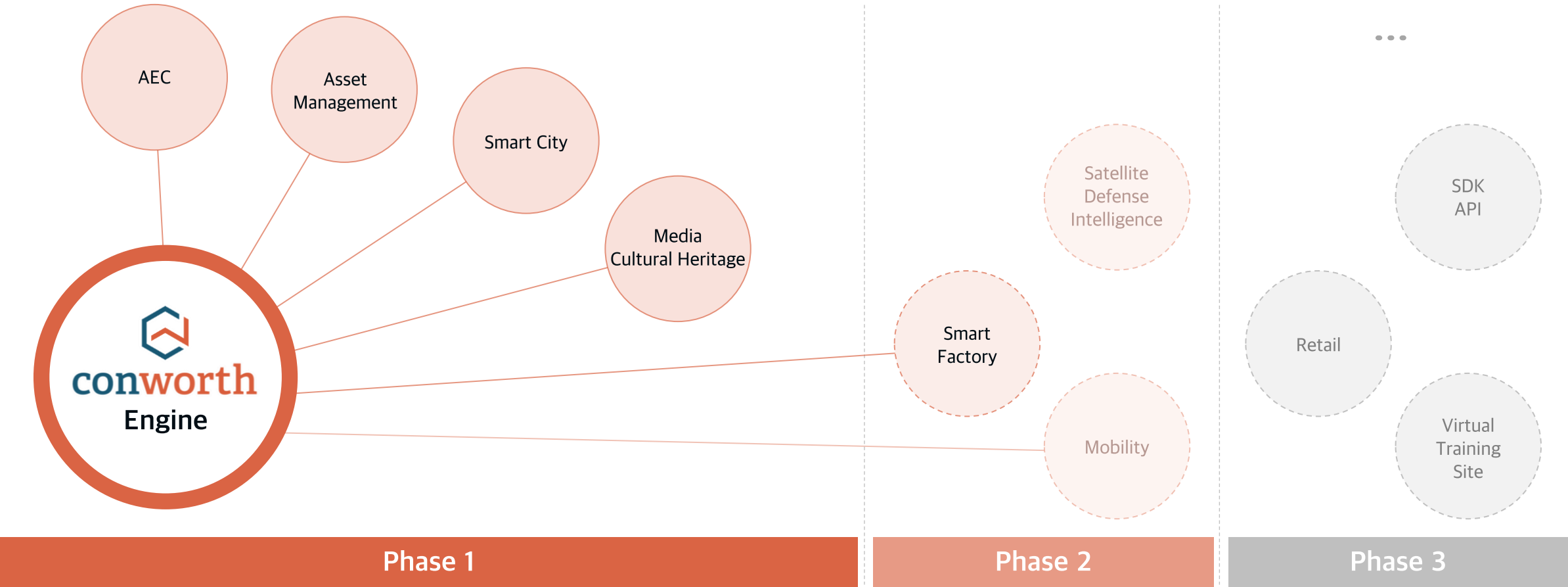
Building Marketing Funnel

Go-to-market Strategy and Execution of Each Solutions and Conworth Engine

Plans | Domain Expansion

Next Phases

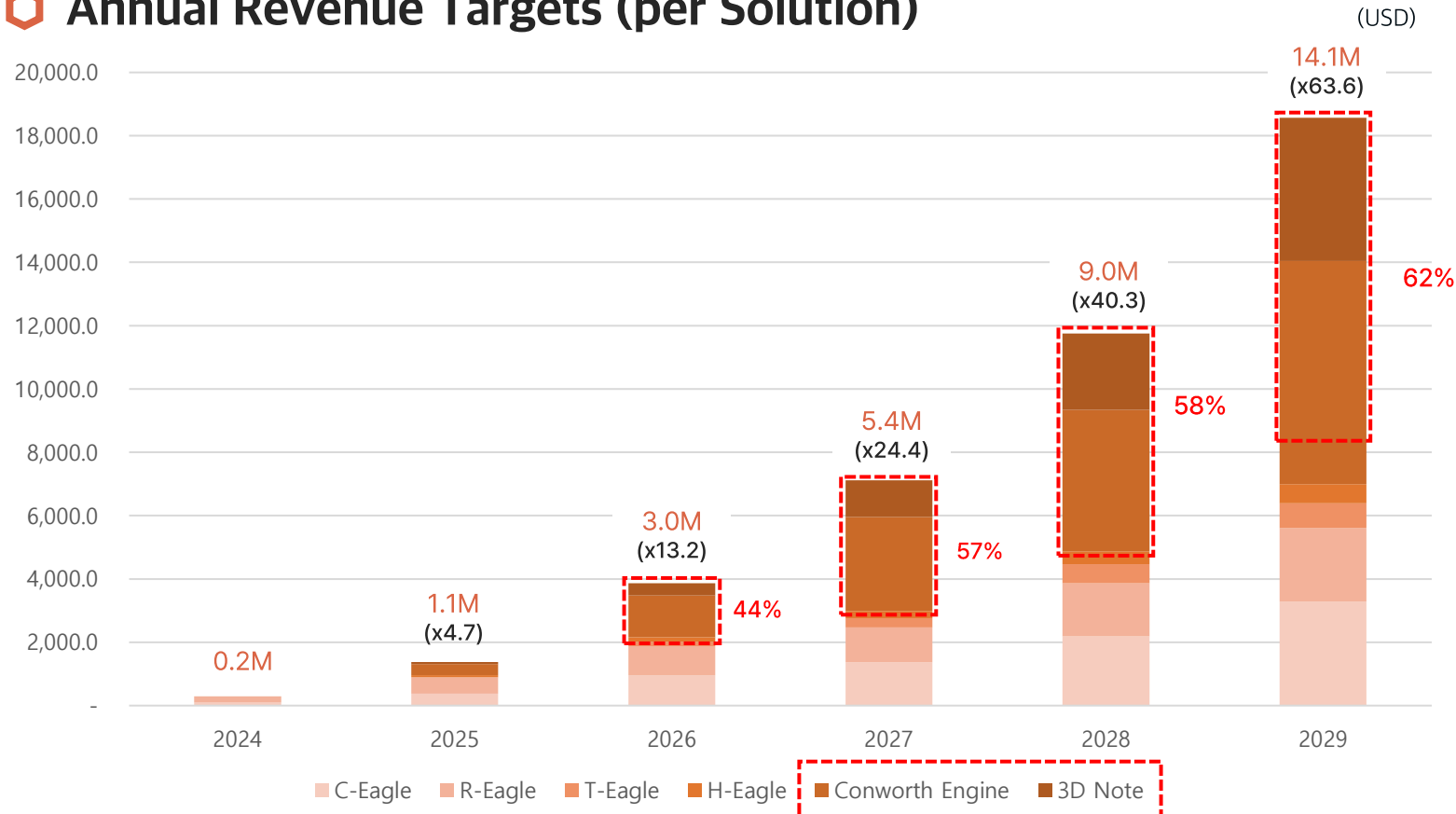
Beyond the current domains, target markets will be expanded into various fields such as Smart Factory, Mobility, Satellite/Defense/Intelligence, Retail, SDK/API and others.



Plans | Target Revenue

Based on technology-intensive Conworth Engine, we offer engine API business and five solutions (C-Eagle, R-Eagle, T-Eagle, H-Eagle, 3D Note) and are actively entering the rapidly growing 3D virtualization market to expand revenue, and **target a buyout/IPO in 2029**.

Annual Revenue Targets (per Solution)



Targets in 2029

Buyout in the U.S. or IPO in Korea
Revenue 14.1M USD

Conworth Engine / 3D Note

8.8M

12 Engine API/Licenses
4,270 3D Note Subscriptions
9 3D Note Site Licenses

Business Solutions (SI)

5.3M

58 Business Solutions
7 Consistency Solutions (International)

Conworth offers unprecedented **3D data solutions.**



Homepage: conworth.io
E-mail: contact@conworth.io

Appendix

1. Patent Holdings Status
2. Revenue and Cost Planning



Appendix | Patent Holdings Status

특허증

CERTIFICATE OF PATENT

특 허

제 10-2663333 호

출원번호

제 10-2023-0055379 호

출원일

2023년 04월 27일

등록일

2024년 04월 29일

발명의 명칭

Title of the invention

건축 정보 모델을 이용한 3차원 공간 기반 협업 지원 시스템

특허권자

Patentee

주식회사 컨워스(110111-*****)

서울특별시 서대문구 연세로 50, 417호(신촌동, 연세대학교 공학원)

발명자

Inventor

등록사항란에 기재

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2024년 04월 29일

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QR코드로 현재기존 등록사항을 확인하세요

특허청

Korean Intellectual Property Office

특허증

CERTIFICATE OF PATENT

특 허

제 10-2691372 호

출원번호

제 10-2024-0084325 호

출원일

2024년 06월 27일

등록일

2024년 07월 30일

발명의 명칭

Title of the invention

3차원 포인트 클라우드에 기반한 전신주의 구조형 건축성 평가방법

특허권자

Patentee

주식회사 컨워스(110111-*****)

서울특별시 서대문구 연세로 50, 417호(신촌동, 연세대학교 공학원)

발명자

Inventor

등록사항란에 기재

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2024년 07월 30일

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특허청

Korean Intellectual Property Office

특허증

CERTIFICATE OF PATENT

특 허

제 10-2715119 호

출원번호

제 10-2023-0115054 호

출원일

2023년 08월 31일

등록일

2024년 10월 02일

발명의 명칭

Title of the invention

서버 사이드 렌더링 시스템

특허권자

Patentee

주식회사 컨워스(110111-*****)

서울특별시 서대문구 연세로 50, 417호(신촌동, 연세대학교 공학원)

발명자

Inventor

등록사항란에 기재

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2024년 10월 02일

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특허청

Korean Intellectual Property Office

특허증

CERTIFICATE OF PATENT

특 허

제 10-2813690 호

출원번호

제 10-2024-0161653 호

출원일

2024년 11월 14일

등록일

2025년 05월 23일

발명의 명칭

Title of the invention

고고도 및 저고도 비행체에서 촬영된 영상정보를 이용한 하천의 표면유속 측정 방법

특허권자

Patentee

주식회사 컨워스(110111-*****)

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발명자

Inventor

등록사항란에 기재

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2025년 05월 23일

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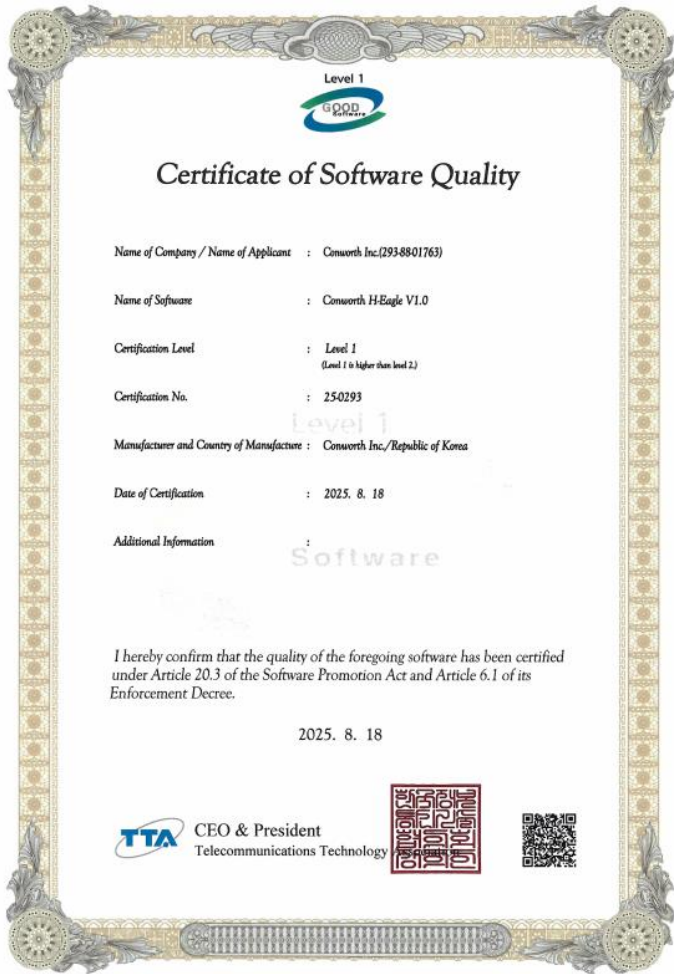
Appendix | Certification Holdings Status

1등급


GS Certificate No. 25-0293
Conworth H-Eagle V1.0

1등급

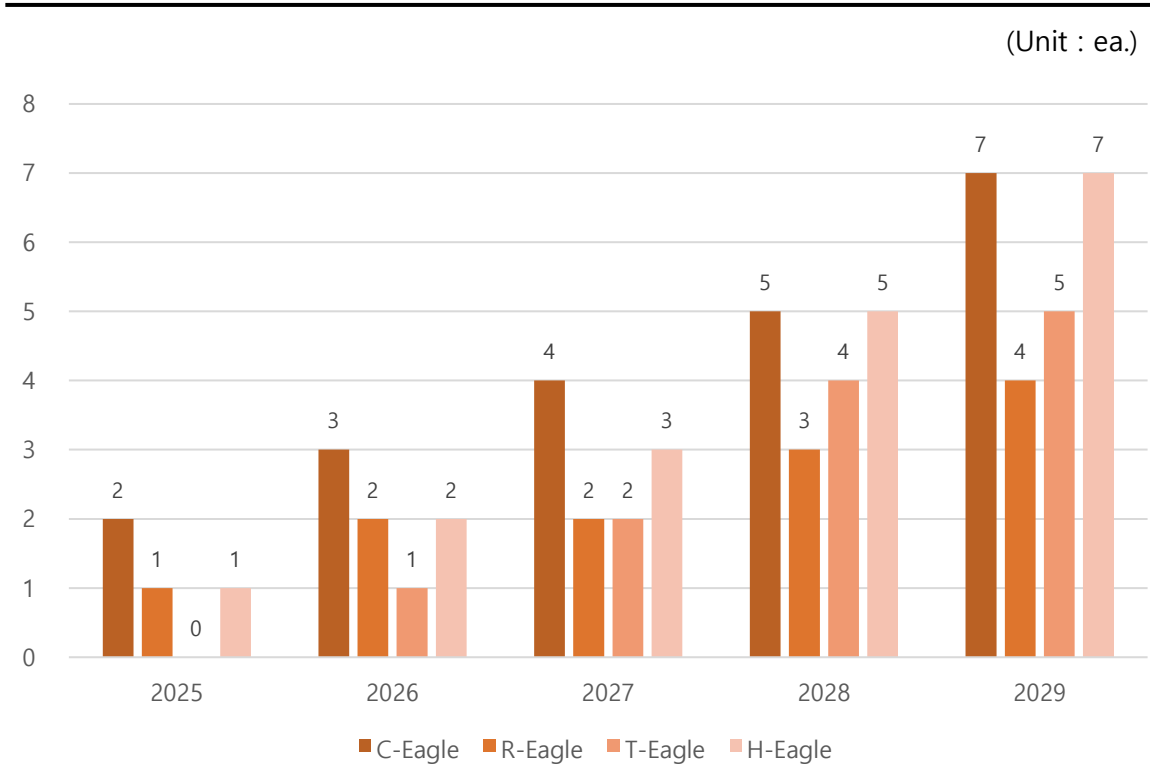

GS Certificate No. 25-0295
Conworth 3D Note V1.0



Appendix | Revenue and Cost Planning

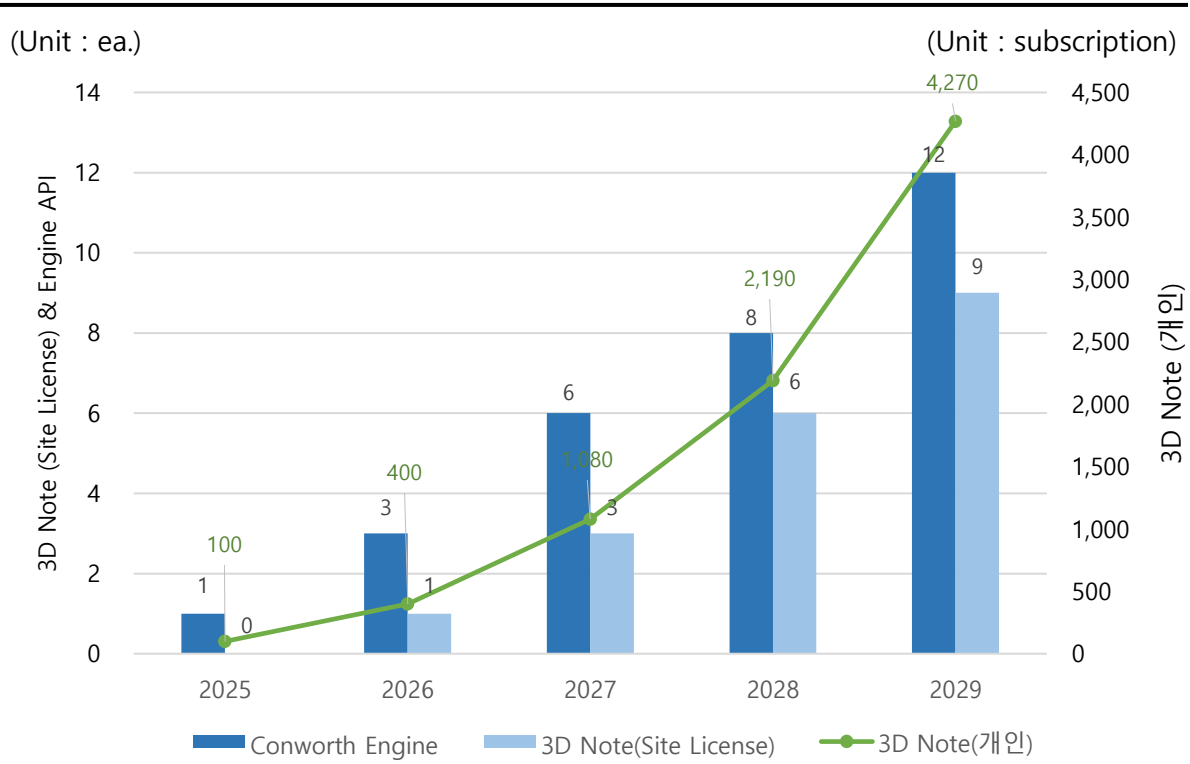
Sales Plan by Products

Product - SI



- 23 new SI solution contracts (20 domestic / 3 overseas) in 2029
- Cumulative total of 65 SI contracts (58 domestic / 7 overseas) in 2029

Product - SaaS & Engine API

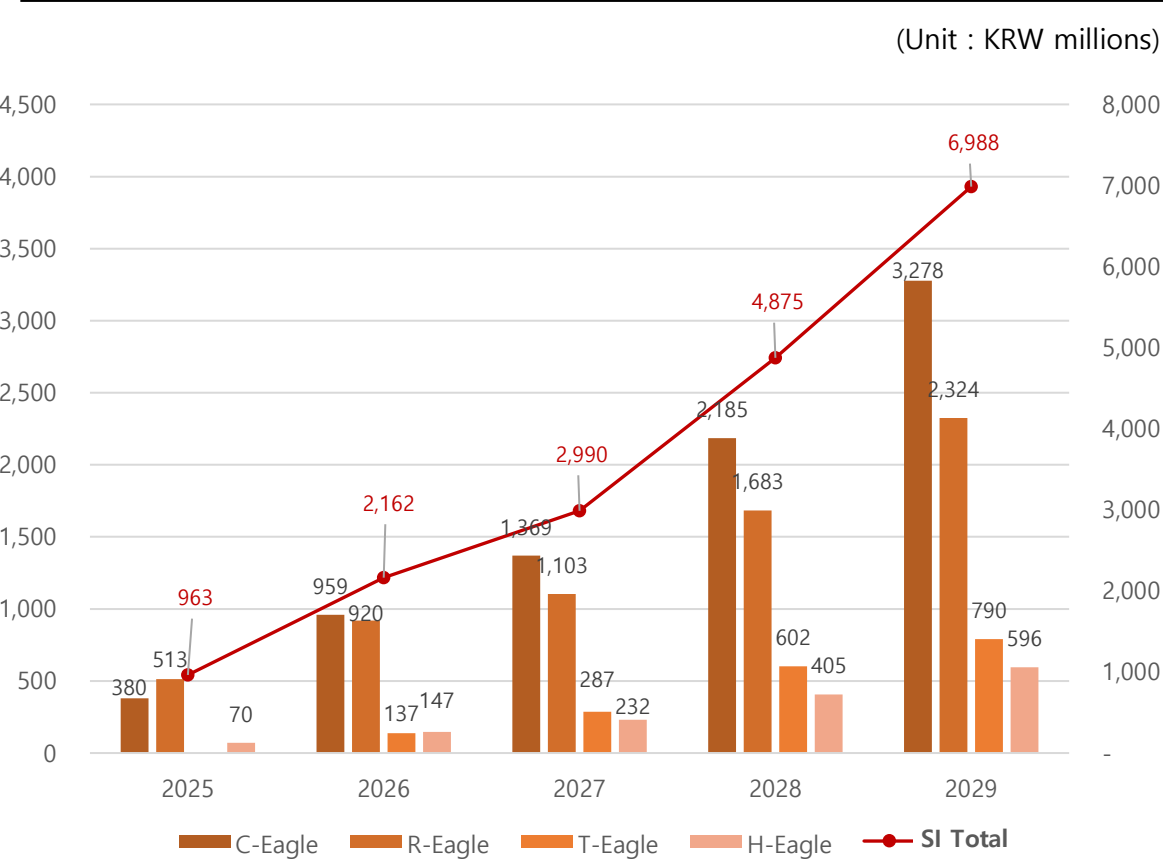


- 4,270 3D Note users and 9 Site License field contracts in 2029
- 12 new Conworth Engine API contracts in 2029

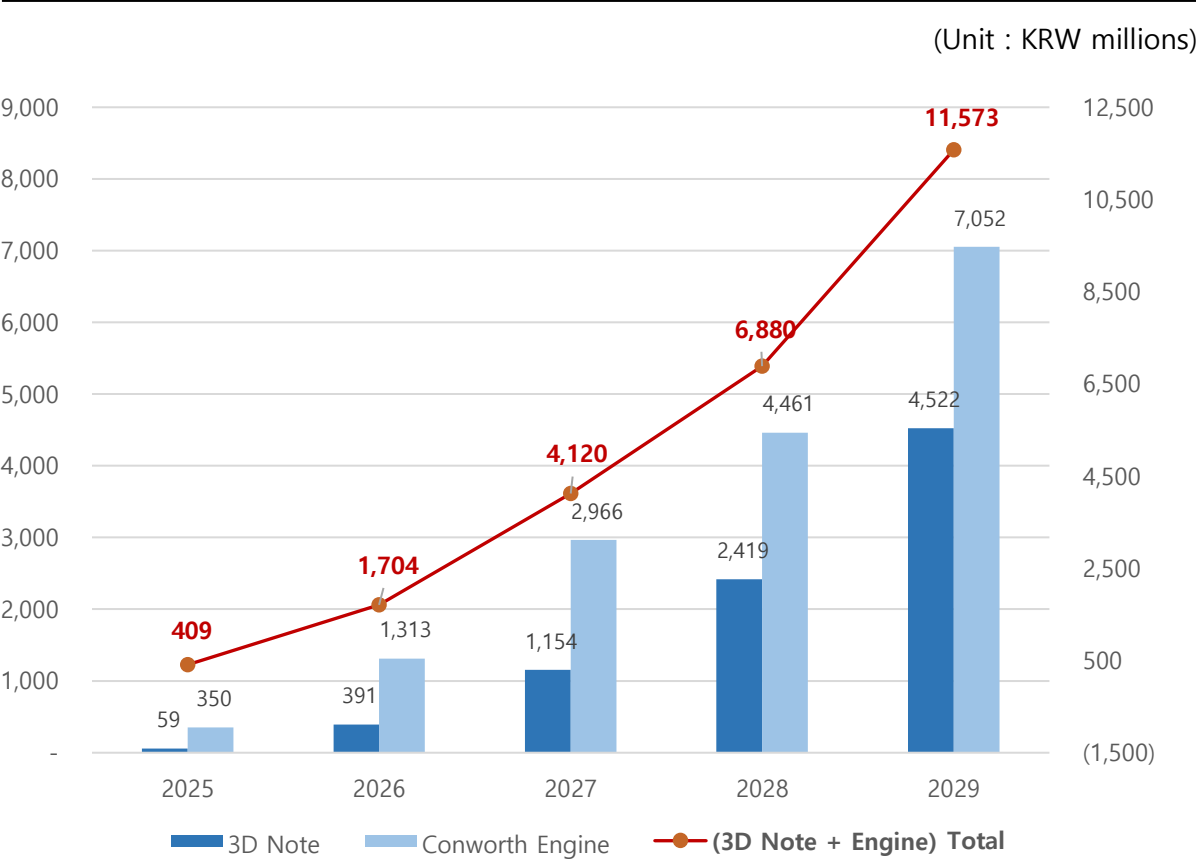
Appendix | Revenue and Cost Planning

Revenue Plan by Products

Product - SI



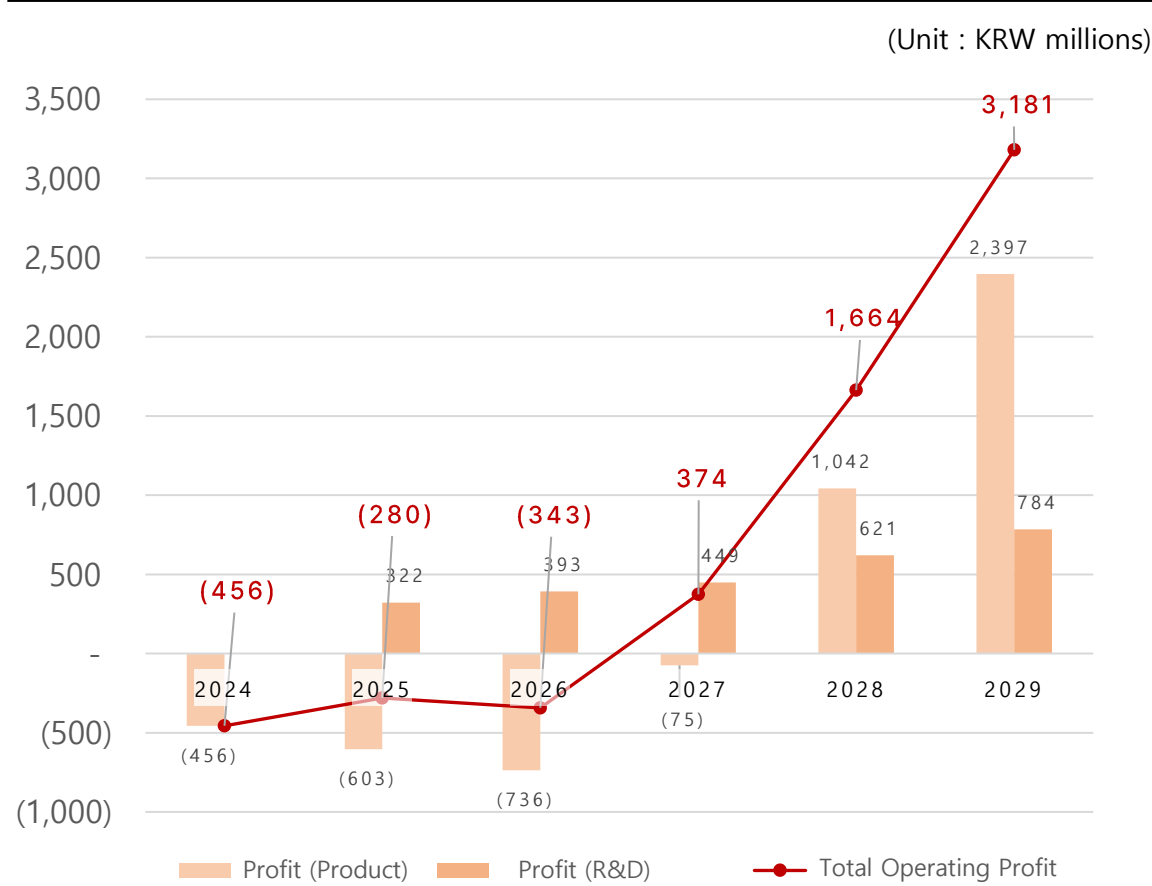
Product - SaaS & Engine API



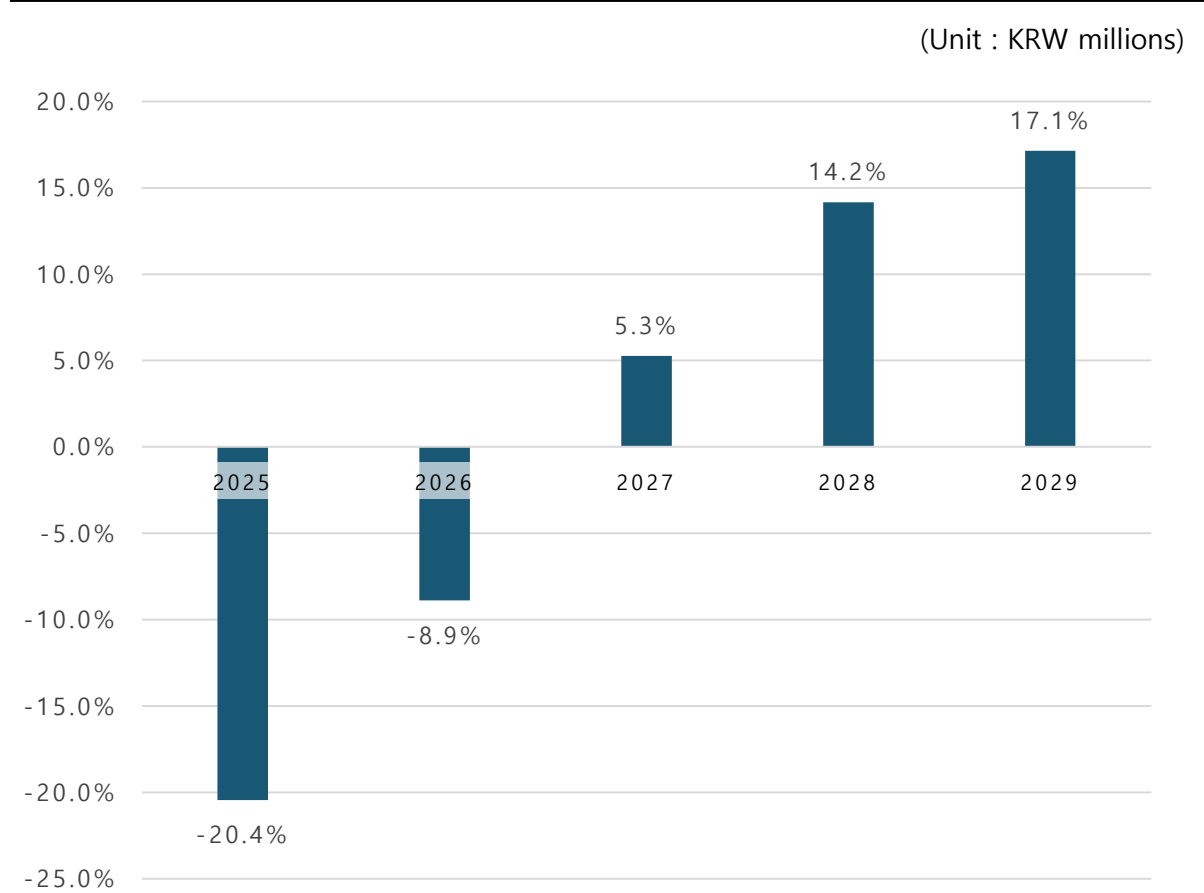
Appendix | Revenue and Cost Planning

Operating Profit (Domestic + International)

Total Operating Profit

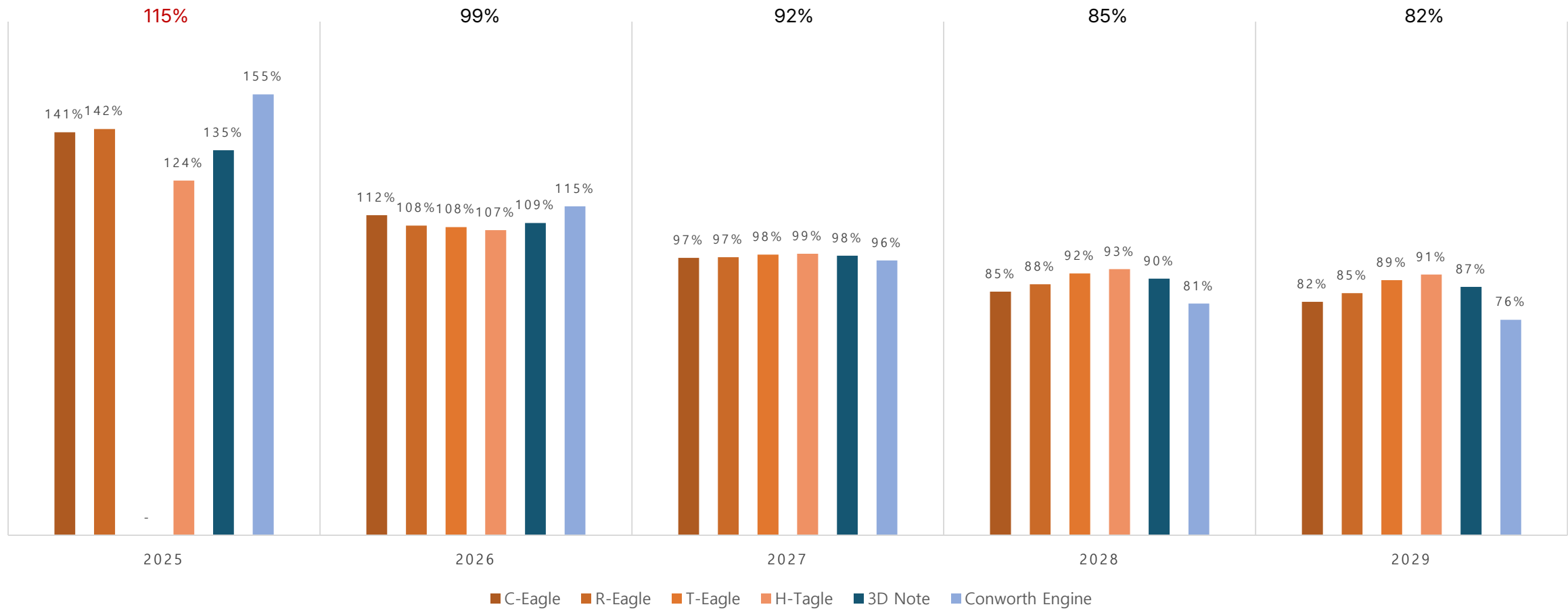


Operating Profit Margin (%)



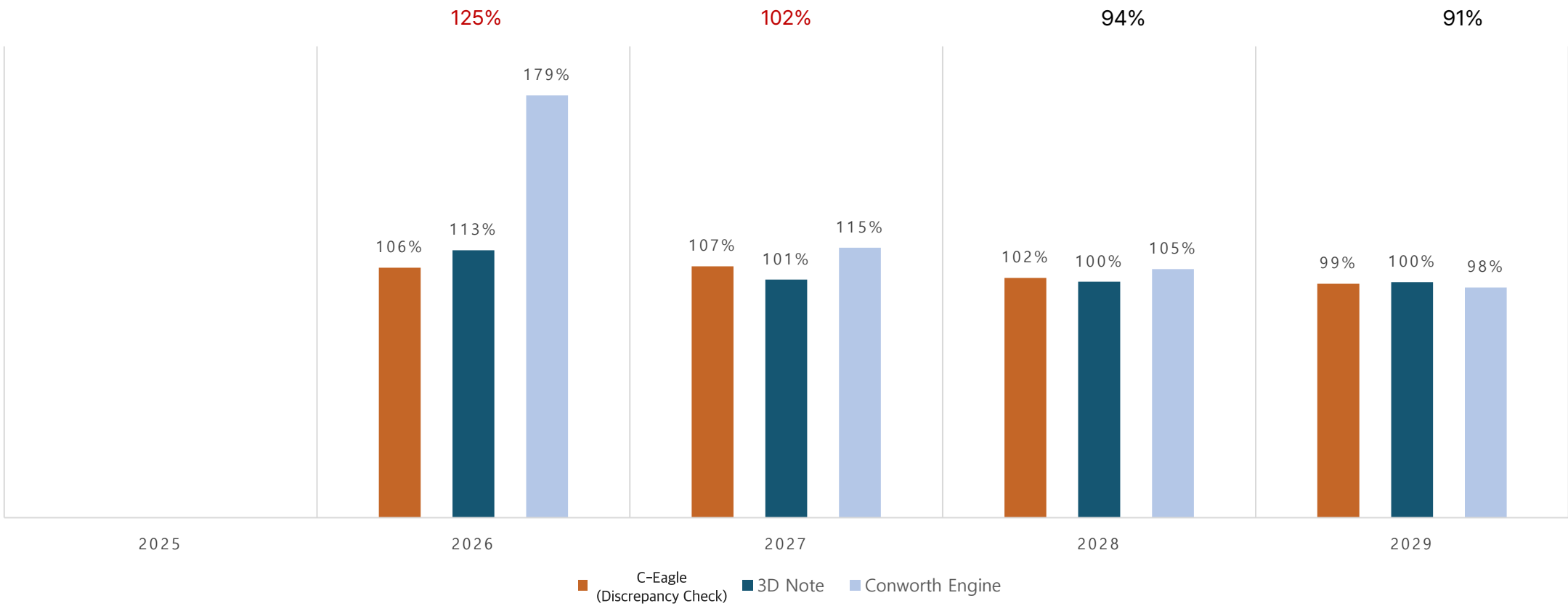
Appendix | Revenue and Cost Planning

Cost Plan by Products (Domestic)



Appendix | Revenue and Cost Planning

Cost Plan by Products (International)

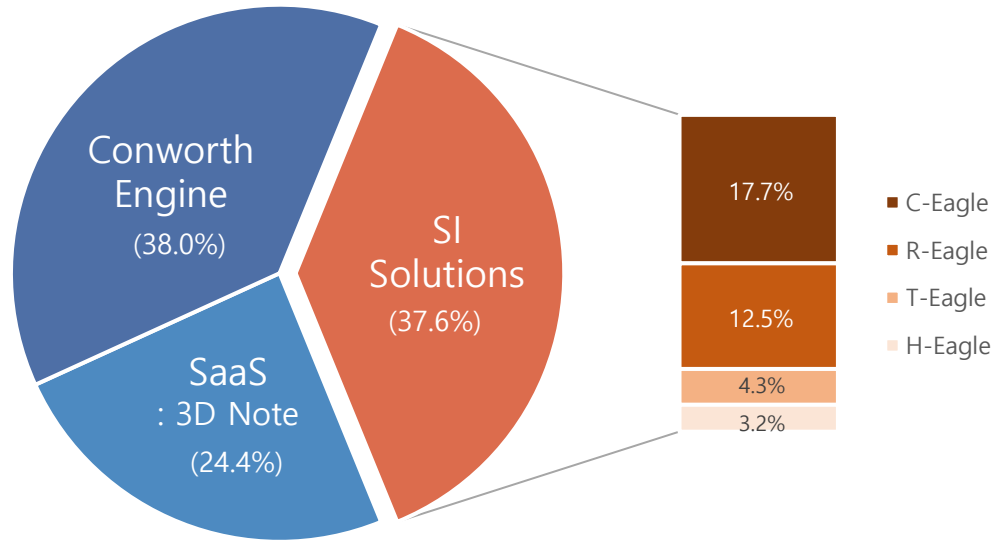


Appendix | Revenue and Cost Planning

Sales Ratio by Products (2029)

(Unit : %)

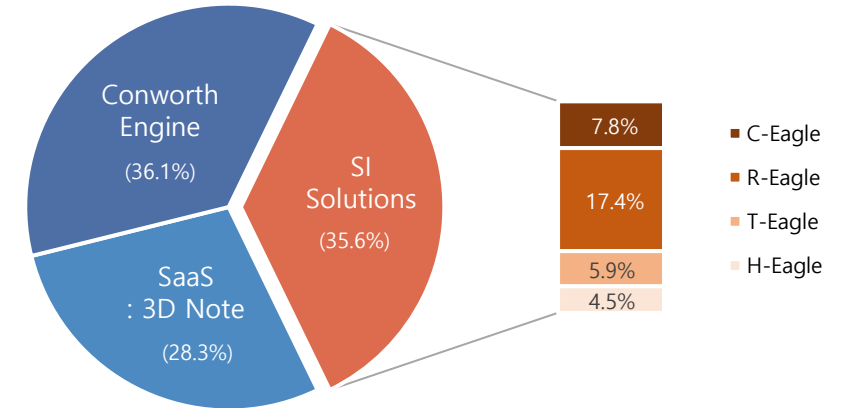
Domestic + International Product Sales Ratio in 2029



- Domestic sales of 13.4 billion (72%) / overseas of 5.2 billion (28%) in 2029

(Unit : %)

Sales Ratio by Products (Domestic)



Sales Ratio by Products (Overseas)

