More Realistic than Reality

Premium **8K 3D VR**

ALPHA CIRCLE®

Everyone in the VR industry knows

The uncomfortable truth. "Low Resolution"

쌩온

다들 몽달귀신들이야... 화질이 구려서 눈코잎이 안보여

kimc*****

5G폰으로 보면 화질 엄청 좋은가요? 노트9인데 uhd화질은 아니고 fhd화질인듯.. 5g는 초고화질인지 궁금해요
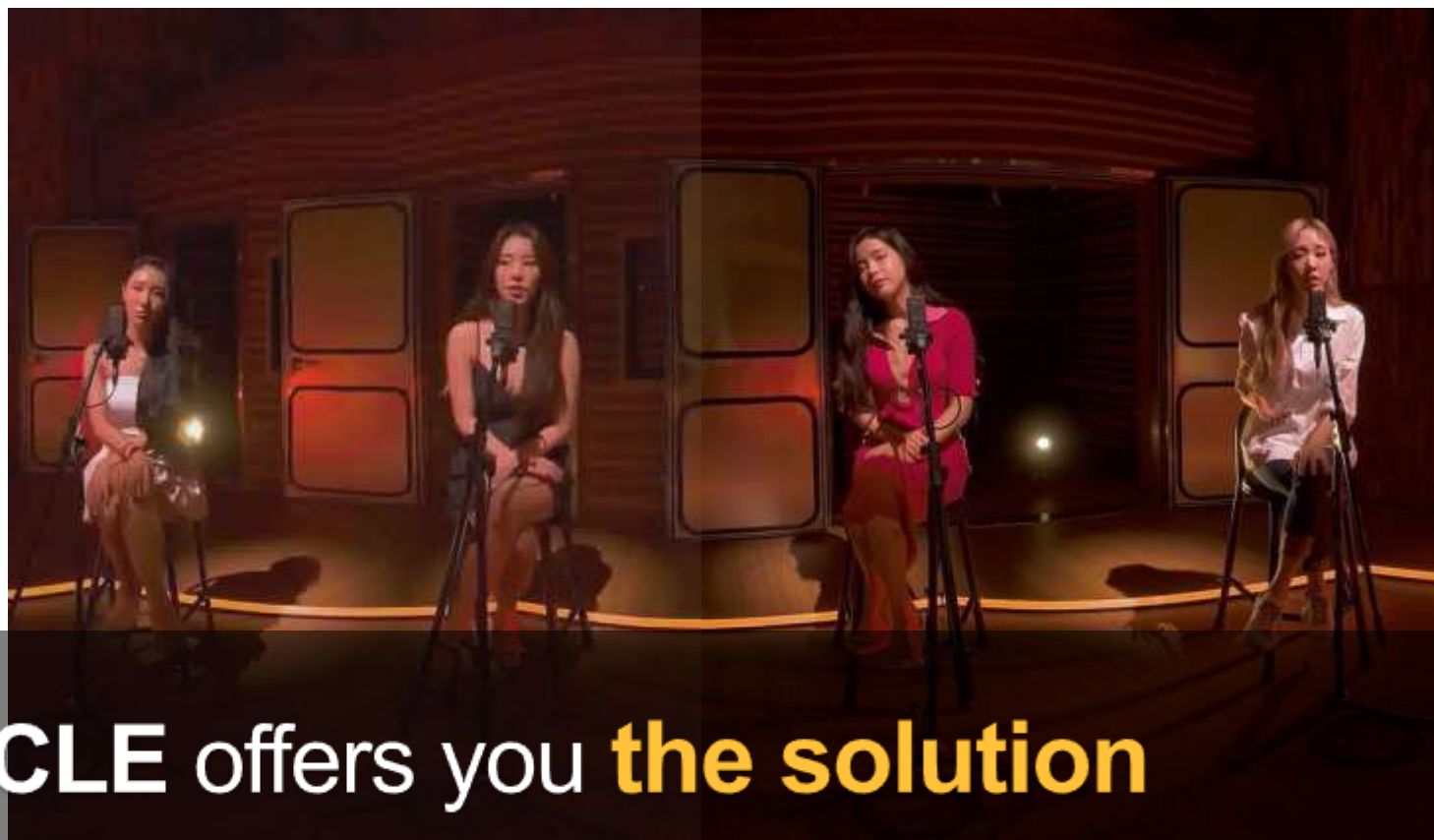
newk****

화질이... 왜이런거죠?

t어쩌라고t

이런 똥화질을 360영상이라고 들이밀다니   5g수듄 안봐도 알만하다 xxxx
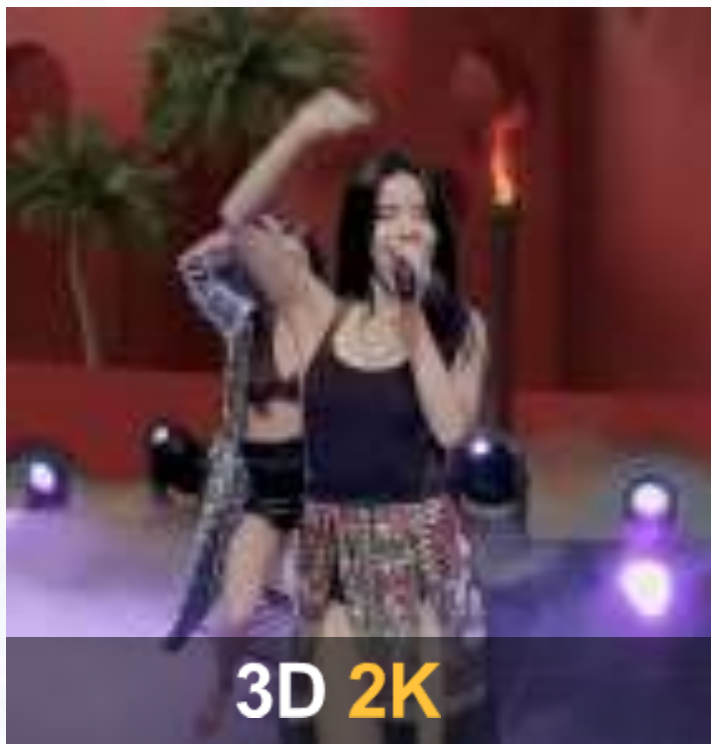
철마는

기어vr 쓰고 보면 해상도도 흐리고 많이 어지럽더군요.
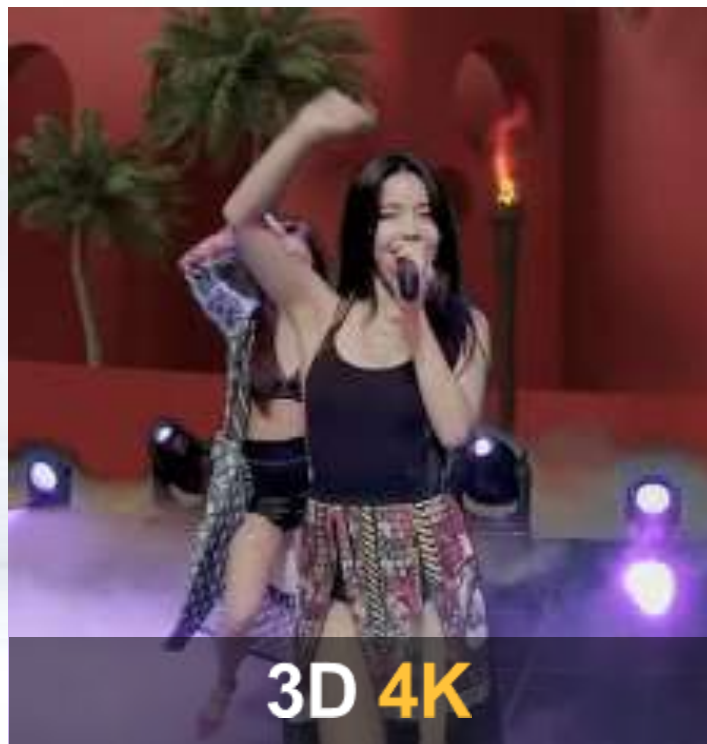
ALPHACIRCLE offers you **the solution**
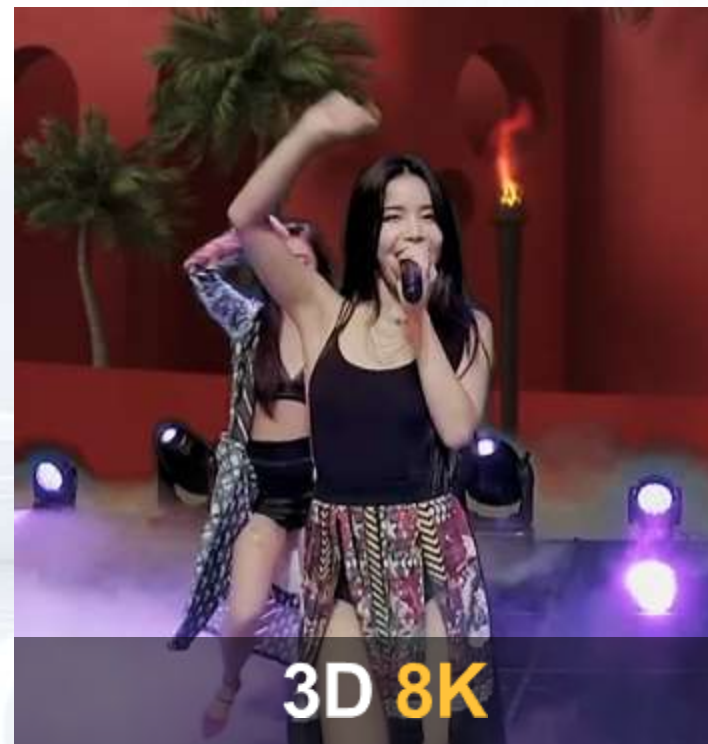
Technical Overview

Based on Image Segmentation and Play Synchronization

Synchronization

※ image source : insta360.com

VR Production Process

Recording → Stitching → Encoding → Decording

Algorithm

Competitiveness
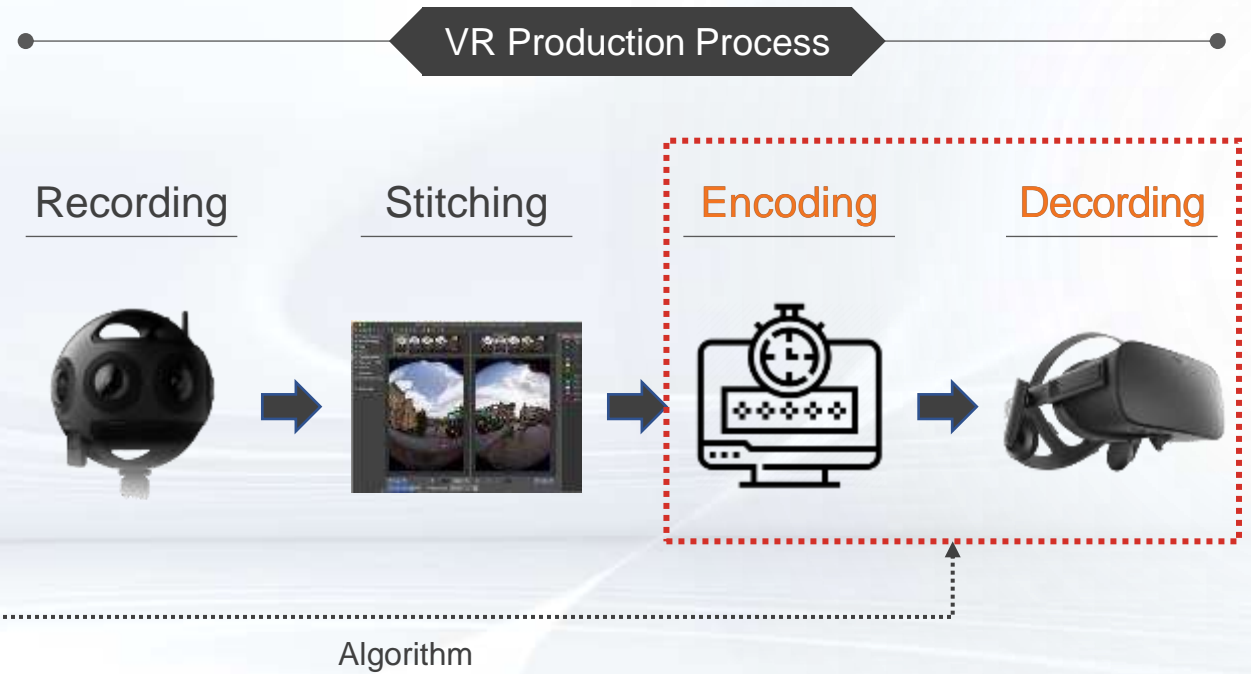
ALPHAView is a World-class image engine

		Google VR	oculus	Insta360	ALCACRUZ	VISBIT	ALPHA CIRCLE
	Typical 3D VR	**VR180**	**vr5kplayer**	**Crystal View**	**Super stream**	**Visbit Player**	**ALPHA View**
Quality (ppd²)	64	112	104	144	144	200~250	**308**
High definition Area	-	Front 180⁰	Length 72⁰	all	all	all	all
Synchro-nization	-	-	△	△	△	△	○
60FPS	○	○	X	X	unknown	X	○
Resouce Consumption	mid	mid	high	high	mid	high	mid
Server Cost	-	low	low	unknown	high	unknown	low

※ ppd² (pixel per degree square) : Number of pixels in the 1 degree by 1 degree area

IP : Application for 13 patents and four trademarks

(9 in Korea & 4 PCT)

Initial application patent registered in Korea (Jan.2020)

Business Performance

World's first Charged VR Album

genie

- **Outline**: Production and commercialization of VR videos of famous idol groups
- **Concept**: K-Pop Idol + ALPHAView VR + Album business
- **Arrangement**: Genie Music (KT), ALPHACIRCLE
- **Release**: 19 Dec. 2019
- **Sales**: ALPHACIRCLE $0.21mil (License & App Dev.)

Business Performance

New Media VR Teaser Platform

- **Outline**: Project to build VR teaser service for performing arts/exhibitions/museums
- **Concept**: 'Visit in advance' in culture and art space
- **Arrangement**: YONHAP News, ALPHACIRCLE
- **Schedule** : Pre-open in the 1st half of 2020 (Google store)
- **BM**: Production, Media Ad profit

*Trademark application completed

Sejong Center

National Museum of Korea

National Museum of Modern and Contemporary Art

Seoul Arts Center

Target Marget

	Phase 1	Phase 2	Phase 3

LA VR Direction

Phase 1 — Immersive Contents
- Apply to Entertainment
- Record, Performance, etc
→ SOM

Phase 2 — Video Format
- Extension of applied domains
- Movie, Ani, Drama, etc
→ SAM

Phase 3 — Media
- Popularization, Ad&Interactive ex) Youtube, Netflix
→ TAM

Global Market

VR Album (2019)

Music *$20bn
*Recorded music
(2020)

+ Movie
+ Animation
+ Drama
(2022)

OTT $160bn (2024)

Smartphone — Global shipment 1.4 billion (2020~2024 annual average)

Standalone HMD — Global shipment 7 mil(2019) → 42 mil(2023)

※ Source : Music market – Goldman Sachs, IFPI(2017), OTT market – Statista, Bloomberg(2019)
Smartphone - IDC(2019), Standalone HMD - CCS Insight(2019)

Short-term Objective

Leading the VR Image Engine Market

Market Leading

Overseas Expansion

Commer-cialization

Preoccupation of market standard in transitional VR ecosystem

Solution provision centered on device manufacturers

Killer Contents Production, VR Teaser Service

KPI

Solution Supply	VRoadway
4 cases	**4** teasers

Advanced Dev.

Expand engine operating devices
(Standalone HMD, etc)

Solution Supply	VRoadway
6 cases	**16** teasers

Related technology convergence
(Interactive AR, Voice recognition, etc.)

Solution Supply	VRoadway
24 cases	**130** teasers

▶Next Page

2020 1H　　　　　　　　**2020 2H**　　　　　　　　**2021**

Technical Roadmap

Version Upgrade (y-axis)

- 2021~
- 2020
- 2019

AI (based on pattern or image recognition)

Real-time playback (high-quality LIVE)

AR, interactive UX

Streaming (~Mar. 2020)

(Local/Smartphone)
Ultra-High Definition Image Engine

(standalone)

HTC Vive

Oculus

Pico

(new type)

VR Glass

iPhone

(iOS)

Device-free solution
(ex. Unity plug-in)

2019   2020   2021~

Platform Expansion (x-axis)
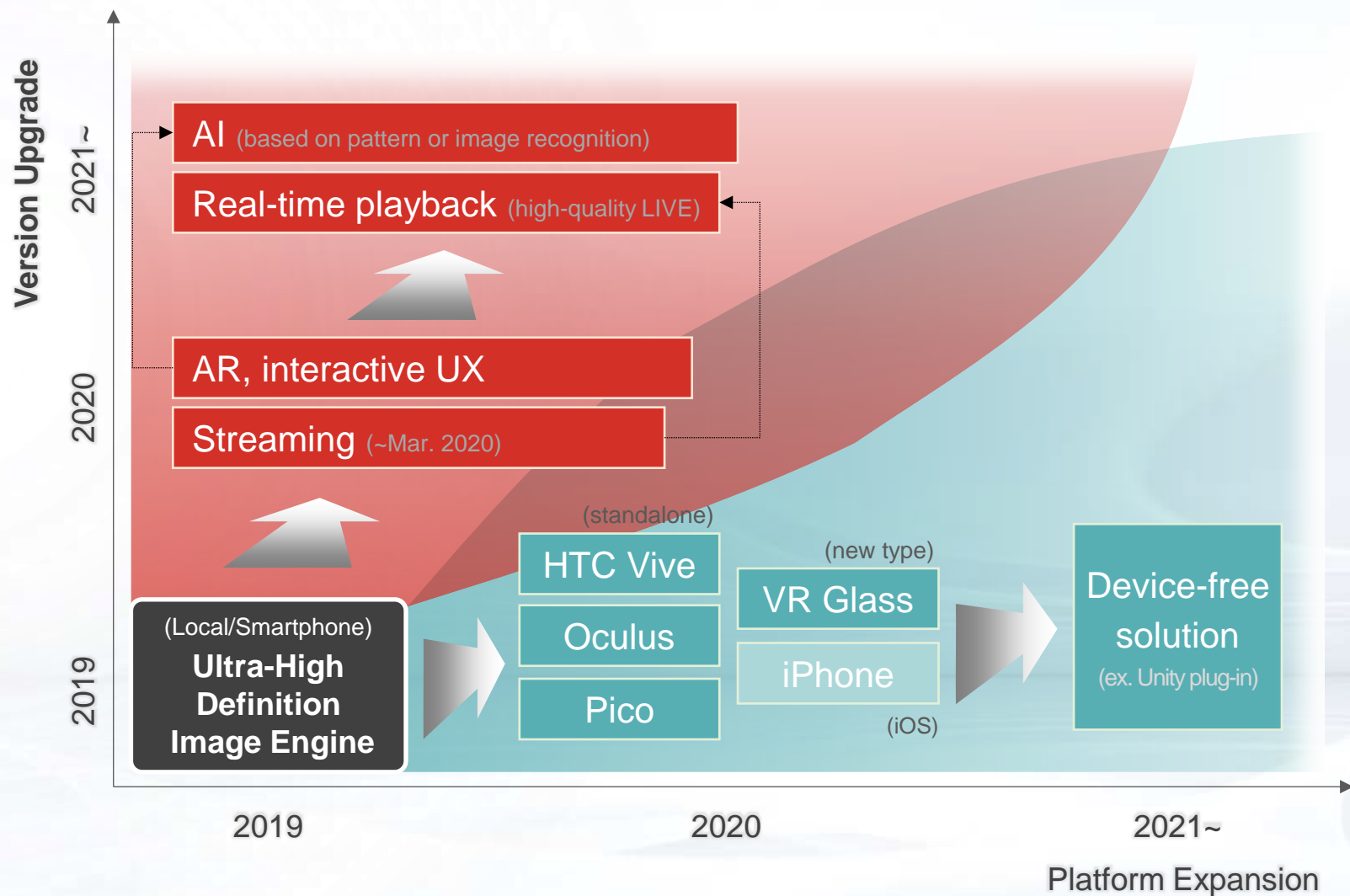
Version Upgrade

- Add and Merge key functions (Real-time, MR, AI, etc)
- Orientation of standard solution in VR image sector

Platform Expansion

- Select priorities in the transitional device market
- Partner solutions for future standard devices

Core Manpower

CTO
Tony Chung / Super Engineer

CEO
Dennis Shin / Mild Bulldozer

CSO
DW Cha / Detailed Big Picture

TA-Student

Project Partner

Dev. 20y	Physical layer

2016 SW architecture design for fingerprint recognition button application of pressure sensors
2010 A mathematical analysis of resonance condition of 6/9 axis motion sensor

- Branch Manager & Technical Director, Nextinput (2y)
- Technical Director, Invensense (NASDAQ, 6y)
- SW/HW development, SK Teletech, KT Tech (10y)
- Department of electrical enginerring, Seoul National Univ./Graduate school

New Business 20y	VR/AR expert

2015 Ministry of Science, ICT and Future planning award
2012 Young Entrepreneurship award
2011 Qualcomm QPrize ranked 1st in Korea / 3rd in global (AR service, 'OVJET')

- Prof. of VRARMR Center of Suwon Univ. (2.5y~)
- CEO, Kiwiple Ltd. (AR company, 8y)
- Product planning, SK Telesys, SK Teletech (Pantech) (10y)
- Electrical and electronic control measuring engineering, Seoul National Univ.

Strategy 16y	Platform expert

2017 A number of M&A and business consulting
2013 Smilegate game platform establishment
2010 Samsung P&L forecasting system establishment (w Ernest&Young)

- Consulting & BD, Mayforce (2y)
- Platform business manager, Smilegate (5.5y)
- Strategic planning, Samsung SDI, Hotel Shilla (8y)
- Business administration, Yonsei Univ.