South Korea: Opportunities for Australian VR/AR Developers

Rodney Commerford, Trade Commissioner, Australia Trade and Investment Commission
Seoul Post

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AUSTRADE SEOUL SERVICES AND EXPERTISE

Market trends and statistics, identify market barriers and regulations and assess market potential

Visits to Korea: Tailored meeting programs and visit program support providing cultural, business and language guidance

Provide information about Korean commercial practices and requirements

Exhibitions and conferences

Identify business partners, new customers and opportunities through our business networks

Targeted trade missions
ECONOMIC PROFILE: REPUBLIC OF KOREA

- **Population:** 50.8 million
- **GDP:** US$ 1.41 trillion
- **GDP per capita:** US$27,538
- **Sector strengths:** Electronics, telecommunications, automobile production, chemicals, shipbuilding, steel

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**Import partners (2016):**
- China: 21.4%
- Japan: 11.4%
- United States: 10.7%
- Australia: 3.7%

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**Export partners (2016):**
- China: 25.1%
- United States: 13.5%
- Hong Kong: 6.6%
- Australia: 1.5%

Source: World Bank 2016, South Korea Fact Sheet 2016, DFAT, Korea Customs Office 2016
KOREA MARKET OPPORTUNITIES

KOREA’S MARKET OPPORTUNITY:
TRIGGERS

- Korea-Australia Free Trade Agreement
- Expansion of global value chains by Chaebols
- Manufacturers seek new technology for global competitiveness
- Engineering, Procurement and Construction companies looking overseas for growth
- Financial institutions aggressively looking overseas for yield
- 10 research driven hospitals seek international collaboration
- Push to develop startups
KOREA MARKET OPPORTUNITIES

OPPORTUNITIES IN LINE WITH KOREA’S CREATIVE ECONOMY AGENDA

Platforms for Creative Economy

17 Centres for Creative Economy and Innovation established

MOU between National Science and Technology Council (NST) and CSIRO underway

Stimulating ventures and start-up ecosystem

Collaboration in: FinTech, E-health, Venture Capitals, E-commerce

Strengthening future growth engines

Opportunities in Industry 4.0 including: IoT, 3D printing, Big-data, VR, Healthcare, Biosciences, New material research
South Korea: VR business environments in Korea

SPEAKER 1: Hokyu Kim
CSO / THIRTEENTH FLOOR
KOREA H2 2018 VR INDUSTRY LANDSCAPE

VR business environments in Korea / 2018 2H

KOREA H2 2018 VR LANDSCAPE by Hokyu Kim
MORE THAN 200+ VR ROOMS WITH BIG 5 FRANCHISE

• Small Scale
  › Room Scale
  › Riding

• Large Scale
  › + Walking Attraction

• VR Zone
  › 130+ small spots
  › 15 medium-large spots
  › Device sales & maintenance full package distributor
MORE THAN 200+ VR ROOMS WITH BIG 5 FRANCHISE

• Business Models
  › Revenue Share Type : 50%
  › License Purchase Type : 1~3M KRW / device
  › Steam Commercial Licenses

• Customer Pricing Models
  › 5,000~7,000 KRW / ride : 3-ride, 5-ride package is getting popular
  › 12,000 KRW / hour
  › 30,000 KRW 1-day free pass : decreasing, depending on location

• Popular Areas : Hongdae, Gangnam subway-station area
MORE THAN $50M+ USD

• Many kinds of Gov. subsidy has been fundraised

• Support program / fundraising size
  › $20K ~ $50K USD : Ideation, Design
  › $100K ~ 300K USD : Production, Development
  › $500K ~ 900K USD : Commercialization
AR/VR country revenue vs growth rate (2017 to 2022)

Global revenue share 2022

Long-term growth rate (CAGR 2017 to 2022)

China

USA

Japan

Sth Korea

France

Germany

Italy

Russia

India

Size of bubble = revenue 2022

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PART02 Current Status of Market

Potential VR market growth in Korea

2021 year, Domestic VR market is about 2.1 trillion won. We are expecting higher market share in VR themepark / VR room / Game / Shopping

- Game
- VR Room
- Shopping
- Etc
- VR ThemePark

(Unit: 1 billion KRW)

Source: Korean VR Market Value Projection Model

Average annual growth rate 117%

2016: 43
2017: 171
2018: 318
2019: 589
2020: 1,460
2021: 2,094

2016: 143
2017: 184
2018: 295
2019: 572
2020: 875
2021: 2,094
**Entertainment Space**
- As the interest in leisure grows, the need for active experience increases
- Unique experiences in large shopping malls, offers a new way for the mall to gain a competitive edge
- Maximum time-utilized consumption leads to linked sales due to increased stay time

**MD of Existing Shopping Malls**
- Sales 57%
  - F&B 20%
  - Service 8%
  - Entertainment 15%

**MD of Recent Shopping Malls**
- Sales 40%
  - F&B 25%
  - Service 10%
  - Entertainment 25%

- 10% Entertainment
- 5% Food & Beverage
- 18% Sales Facility
VR content market can be defined by 9 sectors.
APPENDIX
GLOBAL VR LANDSCAPE
THE VR FUND H2 2017 VR INDUSTRY LANDSCAPE

LOCATION BASED  SPORTS/LIVE EVENTS  SOCIAL  GAMES  ENTERTAINMENT  ENTERPRISE  HEALTHCARE  EDUCATION

APPLICATIONS/CONTENT  TOURISM  SPORTS TRAINING  SOCIAL MEDIA  ADVERTISING & ANALYTICS

VR business environments in Korea / 2018 2H
THE VR FUND H2 2017 VR INDUSTRY LANDSCAPE

**DISTRIBUTION (APPS/MEDIA)**

- Oculus
- Sony
- Valve
- HTC
- VIVE
- WEVR
- Oculus
- NextVR
- LittleStar
- Slimer.tv
- GoPro
- Sky
- Pie
- 360 Rize
- Arte360
- Hulu
- VREAL
- Samsung

**3D TOOLS (ENGINES/AUDIO)**

- Unity
- Unreal Engine
- CryEngine
- Autodesk Stingray
- Silicon Studio
- A-Frame
- Vizor
- InstaVR
- VRTK
- VFX
- RealSpace3D
- Facebook
- Mach 1
- Dynsonics
- OSSIC
- Audio
- Google
- DOLBY ATMOS
- Sennheiser
- Bose

**REALITY CAPTURE (360 VIDEO/NEXT GEN)**

- Jaunt
- Facebook
- Samsung
- Surround360
- Sony
- LG
- Ricoh
- Casio
- Nikon
- LUCID
- Vuze
- Insta360
- KANDA
- Insta360

**TOOLS/PLATFORM**

- YouTube
- Facebook
- Jaunt
- WEVR
- Oculus
- NextVR
- LittleStar
- Slimer.tv
- GoPro
- Sky
- Pie
- 360 Rize
- Arte360
- Hulu
- VREAL
- Samsung

**HMD (TETHERED/MOBILE)**

- Oculus
- Sony
- Valve
- HTC
- VIVE
- LG
- Samsung
- Lenovo
- Acer
- VFX
- Varjo
- OSVR
- DPVR

**INFRASTRUCTURE**

- Google
- Samsung
- HTC
- VIVE
- LG
- Intel
- Qualcomm
- Xiaomi
- Huawei
- ZEISS

**INPUT (HAND/EYE/WEARABLE/OMNI TREADMILLS/HAPTICS)**

- Oculus
- Sony
- Valve
- Intel
- REALSENSE
- Leap Motion
- Google
- Microsoft
- gestigon
- UXVR
- REMOIA
- Vimeo
- Ximmerse
- SIXENSE

**BY TIPATAT@THEVRFUND.COM**
South Korea: Opportunities for Australian VR/AR Developers

SPEAKER 2:
Sylvia Ban, Director of Asiaro Limited (GPM London Office), Monster VR
# PART01 Company Overview

## Profile

<table>
<thead>
<tr>
<th>Company</th>
<th>GPM Corporation</th>
</tr>
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<tbody>
<tr>
<td>CEO</td>
<td>Luke Park</td>
</tr>
<tr>
<td>Date of Establishment</td>
<td>May 2010</td>
</tr>
<tr>
<td>Company address</td>
<td>4F, Gahak-ro 84, Songdo-Dong, Yeonsu-Gu, Incheon city</td>
</tr>
<tr>
<td>Main Business</td>
<td>Development of VR platform, Theme part, Contents</td>
</tr>
<tr>
<td>Employees</td>
<td>90</td>
</tr>
<tr>
<td>Websites</td>
<td><a href="http://www.gpm.net">www.gpm.net</a>  <a href="http://www.devkorea.co.kr">www.devkorea.co.kr</a>  <a href="http://www.monstervr.co.kr">www.monstervr.co.kr</a></td>
</tr>
</tbody>
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## History

- **2000. 01**: Founded “DevKorea” (Korea game development community) – 51,000 members
- **2010. 05**: Founded GPM
  - 05 Signed exclusive reseller agreement with Unity3D USA
  - 06 Held 1st Unity Korea Korea-US joint seminar (800 people participated)
- **2011. 02**: Published Unity3D Korean manual
  - 04 Launched “real shooting” game for iPad in other nations (ranked 1st in 5 countries including India, Canada, Netherlands)
  - 06 Held 2nd Unity Korea Korea-US joint seminar (1,000 people participated)
  - 07 Won “Gold Reseller” award presented by Unity USA
- **2012. 02**: Registered as start-up (No. 20120300032)
- **2013. 02**: Signed exclusive publishing agreement on Zombie Hunter with Tencent, China
- **2015. 08**: Developed “Monster VR”, B2B VR service platform
- **2016. 09**: Officially launched “ZBlitz”, Facebook’s global platform gameroom
- **2017. 01**: Signed Monster VR hardware partnership agreement with Jayseahyon Systems Inc
  - Signed Monster VR gaming cafes exclusive reseller partnership agreement with Mediaweb Inc.
  - 03 Signed Monster VR accommodation partnership agreement with Yanolja Inc.
  - Signed Monster VR billing system development partnership agreement with Paylatter Inc.
  - Selected as Coex VR EXPO 2017 official organizer
  - 05 Signed development & partnership agreement on Monster VR financial products with CNH Capital
  - 06 Participated in VR experience zone project sponsored by Ministry of Culture, Sports & Tourism, ROK
  - 08 Opened Monster VR Theme Park in Song-do, Incheon
  - 11 Signed Monster VR Theme Park and franchise partnership agreement with Savills Korea
  - 12 Signed Monster VR resort & hotel partnership agreement with CJ Hello
PART03 Business Model

Business Area

Monster VR: Theme Park / Resort / PC cafe / VR shop / Accommodation / Set-top box for home / School & private institute

VR Platform Service
- GPM is provided content from VR developers, which is accessible and enjoyable in a diverse environment.
- VR contents are available to enjoy in hotels, resorts, pc cafes, VR arcades and at home.
- Business owners pay platform fees to GPM, and this profit is distributed to content developers.

VR Theme Park
- As a VR theme park pioneer, GPM has made great strides in the industry, and is developing amusement parks in urban areas and provides services by attracting investment from global real estate companies.
- GPM has own theme park content and operation solutions, and develop indoor recreation facilities based on extensive experience and know-how.
PART03 VR Service Platform

VR Service Platform Feature 1. "Monster VR SDK"

Software Development Kit sources and tool packages which enable software developers to develop application programs for various operating systems

API. Total ranking
API. Friend ranking
API. Log-in
API. Billing
API. Advertisement
API. Multiplay

Platform providers create markets where content is offered and distributed

GPM distributes SDK for content developers so that they are able to provide content services and generate profits on their own platform

Similar business model as Facebook, Kakao talk, Line, YouTube, AppStore, etc.
GPM MONSTER VR PLATFORM - DEV & USERS SERVICE PROCESS

Service Process
Service Process for Users and Developers

1. **Visit**
   - Users: Friends, Couples, and Families visit MonsterVR stores.
   - Process: They step inside the Cube.

2. **Play Cube**
   - Users: They select games they'll play using the launcher.
   - Process: They have a great time playing together.

3. **Game Launch**
   - Users: They pay according to the total hours they played.

4. **Enjoy**
   - Users: They upload their games with MonsterVR SDK enabled.
   - Process: We approve their games after evaluating service suitability.

5. **Payment**
   - Users: Approved games will be installed to all MonsterVR Cubes.
   - Process: Stats & Analysis system
   - Developers receive revenue according to hours users played.

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Presentation Title
Database System

Offer Usage Analysis to maximize revenue and quality

Gameplay Hours Analysis
Provide data on total time played by users for developers to monitor 24/7

User Analysis
Provide database for user’s age, gender, family, etc., for developers to keep track

Access Region Analysis
Provide regional information about which country from which region games are being played to developers

Game Accessibility Analysis
Provide information on gameplay entering phase accessibility and UX
PART03 Business model - VR service platform

VR Service Platform Features 3. “Monster VR Coin System”

MONSTER COIN SYSTEM (Payment System)
Coins are charged for the amount paid and coins are deducted when the content is used.
1coin 7sec play / 1coin = 10won

VR SERVICE

Business Owner
repurchase
Payment

Revenues

VR Play
Customer
PART03 Platform Service Business

VR Content Distribution

Application for VR content registration → Cloud → VR content approve → Monster Server → VR content DB registration → Data Base Server → Login → Location where platform is installed → Play

Statistics/analysis/billing system

Registration rejection

Content provision process by VR companies
PART03 Business model – Theme Park

Urban VR Theme Park “Monster VR in Song-do”

Charges in indoor recreation
A whole world of virtual reality opened its doors to the public in Aug, 2017.
Located in the Song-do district of Incheon, ‘Monster VR’ was put together by the Culture Ministry and its subsidiary Korea Creative Content Agency. This is by far the biggest urban virtual reality theme park in Korea with 40 different VR content experiences.

Monster VR in Song-do
Grand Opening Date : 4 Aug 2017
Area : 400 square meters
contents : 40 VR facilities
Average monthly visitors : 25,000

DEVELOPMENT LIST
1. Theme park management platform
2. monsterVR platform
3. Monster exclusive cat’s eye patch (design patent)
   1. VR character “V, ARI” (design patent)
   1. Theme park P.O.S SYSTEM
PART03 Platform Service Business

H/W system where VR content is enjoyed in various spaces

Creating an optimal environment where people can enjoy content

People can enjoy VR content in a diverse environments such as accommodation, shops, theme parks, resorts and PC cafes. Creating an accessible and enjoyable environment by eliminating variables disrupting user experience.
PART03 Platform Service Business

Platform Distribution

Platform service process through distribution partners
distribution process for PC cafes, shops, accommodation, and resorts
PART03 Business model – platform service

Monster VR content partners

GPM receives various VR contents i.e. VR games, Adult VR, Video, Education, etc. from 12 countries.

- Gaming: 150ea
- Adult VR: 2,400ea
- Education: 19ea
- Video: 59ea

Korea
VR Game, 360° VR Video, Attraction

Japan
VR Game, Adult VR, 360° VR Video

USA
VR Game, VR experience education, Adult VR, Attraction

Australia
VR Game, 360° VR Video

Croatia
VR Game

China
VR Game

UK
VR Game, 360° VR Video, Attraction

Canada
VR Game
GPM MONSTER VR COLLABORATION OPPORTUNITIES

COLLABORATION OPPORTUNITIES:
- AUSTRALIAN CONTENT DEVELOPERS
- AUSTRALIAN GAMES, VISUAL, CONTENT DEVELOPERS INTERESTED IN EXPANDING THEIR CONTENT THROUGH GPM VR PLATFORM, ARCADES IN ASIA.
- AS THE MAIN SPONSOR OF VR EXPO 2019 OPEN TO INVITE AUSTRALIAN VR CONTENT DEVELOPERS TO KOREA’S LARGEST VR EXHIBITION NEXT YEAR.

To lead the market, PLATFORM, where devs and consumers meet, is the most crucial factor.
VR EXPO 2017 / 2018 official organizer:
Exhibition, Conference, VR competition, etc.

Date: Mar 09(Thurs) - Mar 11(Sat) / Venue: Samsung-Dong COEX D Hall
South Korea: Opportunities for Australian VR/AR Developers

SPEAKER 3:
Richard Eastes, Co-Founder, Richie Plank
Experience Developer, TOAST VR
Q & A SESSION