



Developing for Mobile VR

Choosing your platform and designing your game



- One of the world's fastest growing VR developer/publisher
- Based in Farnborough, UK - 35 mins from London
- We've been focused on VR since August 2013
- Raised £4m in VC funding to date
- High-end VR and mobile VR



Perfect Beach





GUNNER



THE ASSEMBLY



2016: the year when VR goes from virtual to reality

THE YEAR OF VR /

2016 will be the year VR becomes real for everyone

Will 2016 be the year virtual reality gaming takes off?

2016 Year of Virtual Reality

Virtual Reality Is Coming and It Will Change The World In 2016

2016 is the Year of VR



Driven by high-end headsets?



Oculus Rift



PlayStation VR



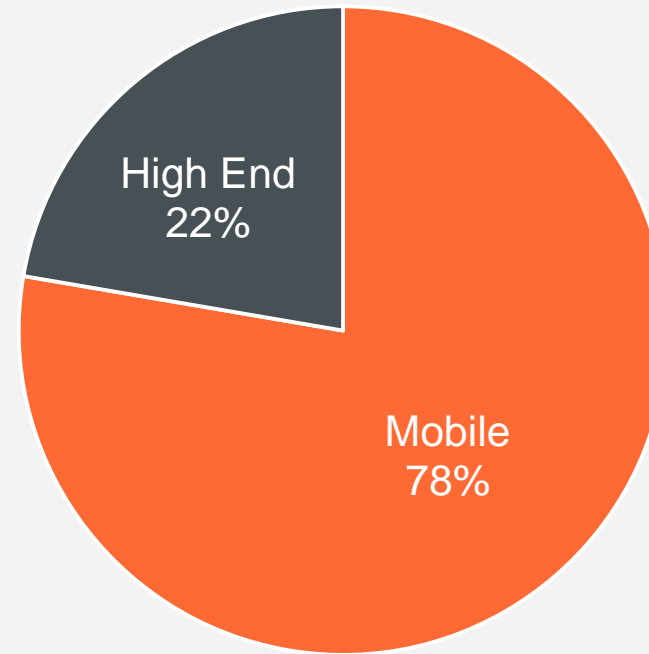
HTC Vive



The Market

Nearly 30 million
mobile VR headsets
by the end of 2016

VR Market Unit Share 2016





Mobile Will Lead The Way

The Headsets



Headsets



Comfortable, user friendly
experience



Entry level VR
No bells and whistles



Cardboard Alternatives



Higher cost, but with improvements to comfort.



Graphics/Rendering



Resolution	2560 x 1440	Depends
Field of View	96'	60'
Latency	< 20 ms	~80 ms
Draw Call Limit	100	60



Negligible Cost = High Distribution

October 2015

**New York Times Gives Away One Million
Virtual Reality Viewers for New App**

January 2016

Google has shipped over 5 million
Cardboard headsets



Handset Compatibility



Ease of supporting one OEM



Larger potential market.



Marketplace



Platform	Closed	Open
Pricing	Premium focused average \$4.40	In line with mobile
Promotion	Curated storefront	Ad-driven
Ease of discovery	Easy	Hard
High quality competition	High	Low



Summary



Gateway to the mass market



Higher cost, higher quality



Summary



Support Both!

Tips For Supporting Both

| Input

Support
standardised
inputs

Gaze



Headset Input





Playtime

Comfort Limits Playtime



But VR Will Increase Playtime



Mobile: 6.8 mins*



Mobile VR: Already 10-20 mins



Match Art to Technical Limitations

Draw Calls



A vibrant, high-quality digital illustration of a tropical beach. In the foreground, a sandy beach is marked with the long, dark shadows of palm trees. Several palm trees with lush green fronds lean over the sand. To the right, a large, craggy rock formation meets the sea, featuring a natural rock archway. The ocean is a deep blue with gentle white waves lapping at the shore. The sky is a clear, bright blue with a few wispy clouds. The overall scene is bright and idyllic, showcasing advanced digital art techniques.

Console Quality Graphics

A large, diverse crowd of people walking on a city street, overlaid with the word "Demographics". The crowd is dense and fills the frame, with people of various ages and ethnicities. In the background, there are trees, a red building, and a pedestrian crossing sign. The word "Demographics" is written in a white, serif font, centered over the crowd. An orange triangle is visible in the bottom right corner.

Demographics



China

- VR in China will be primarily mobile
- A mix of:
 - “Place your phone in to the headset” style
 - Integrated wireless headsets
- Headset quality are from Google Cardboard towards Gear VR quality. A huge number of different headsets.
- Some big headsets launching in the next few months.
- High end VR primarily just for arcades, shopping centres
- Different monetisation models; premium won't work





The future of mobile VR

- Positional tracking
- More CPU and GPU power
- Cardboard type devices will disappear
- Hand tracking via camera
- The Google v Apple war continues...

Thank *you*



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