



SOUNDVIEW  
RESEARCH

VUZIX (VUZI \$9.75)

READY FOR ENTERPRISE AR ADOPTION

SEPTEMBER 9, 2016

KRIS TUTTLE (KRIS@SOUNDVIEW.CO)

## RealVR finally going commercial.

I just spent some time with Vuzix CEO Paul Travers in Boston to get an update on the company and also to do some hands-on with the current product lineup. This is a story I have followed for some time now and our published work on AR/VR goes back to April 2009 when we published this basic report: *RealVR – The Next Really Big Thing*<sup>1</sup>.

Here we are seven years later and finally commercial “RealVR” is seeing meaningful adoption. The reasons it’s happening now are:

1. **Companies are running out of options to improve efficiency** and employee productivity. For example, Amazon is churning through people who quit after a year of working 80 hours a week for low pay. The only answer is fewer, better paid but vastly more efficient people. To some degree this has always been the future but now it’s getting more interesting.
2. **Miniaturization has worked its magic.** Devices are now powerful, small and light enough to get the work done and be worn all day. Combined with better user-focused design, these products are actually usable.
3. Word is out: A wave of acquisitions, company financings, news and fads like Pokémon GO have put **RealVR in vogue and simulated demand for useful or fun applications.**

It’s been coming for a long time but it’s still very early. Nearly 10 years ago it was professor Clay Shirky<sup>2</sup> from NYU who did an experiment with cell phones and a kind of scavenger hunt (very similar to what we see now with Pokémon GO) and came to the brilliant conclusion – “it’s not about putting the game on the phone, it’s **about putting the phone** in the game!” (emphasis mine)

## So what about Vuzix in all this?

Vuzix (NASDAQ: VUZI) has been in the mix here for a long time (founded 1997) but worked mostly in defense until that division was sold off in 2012 so the company could focus on commercial applications. Their first successful product, the M100, was good for conducting pilots but not the solution customers needed. The company states there are between 8,000 and 10,000 M100 units out there, most are for evaluation but there have been some customers who have bought over 100 units. The M100 gave them the early customers and a

### Contents

**RealVR is going commercial.**

**What about VUZI?**

**Stock and Valuation.**

**What’s the bear case?**

**Conclusion.**

<sup>1</sup> [http://s3.amazonaws.com/Published\\_Research/R2\\_RealVR\\_Intro\\_2009.pdf](http://s3.amazonaws.com/Published_Research/R2_RealVR_Intro_2009.pdf)

<sup>2</sup> <http://shirky.com/writings/>

platform to get field-based feedback to design what is now the product that can launch the company into the mainstream, the M300 AR headset<sup>3</sup>.

While Google Glass received quite a few headlines, it was (and still is) really a science experiment versus a deployable product. Vuzix has focused on the enterprise applications and users for AR headsets. The M300 is powerful, light and comfortable with mundane but critical features like multiple mounting options, hot-swappable batteries and full tilt and angle adjustments.



Vuzix M300

We'll get into their other products more in a bit but the M300 is the story in Q4 of this year and 2017. Some of the early pilot customers like DHL have been announced and they have stated their intentions to deploy broadly with the M300 as soon as they can.

Vuzix has a good range of meaningful partners including VARs, system integrators and tool providers. The software and services needed to deploy AR solutions go well beyond just a device like the M300.

Early versions of the M300 have been shipped to "VIP" customers and partners where they are being tested and early applications based on the M100 are being ported over. There is still some work to be done here. Later in September a larger set of units will get into the field for testing as the last step to general availability (GA), which will likely be in October.

GA and volume shipments of the M300 are key to the stock from here. We'll discuss the stock and valuation more below, but substantial revenue growth and profitability depends on the M300 going GA and shipping in volume early in Q4 2016.

Beyond the M300 there are other products. Some visible, some not yet announced. The visible ones are the M3000 which is a "waveguide" technology and the VR headsets the company continues to sell into the gaming and drone space. From a display standpoint, the M3000 is very different from the M300. Instead of a small display that you look into, the M3000 projects into your full visual field. So it overlays your view of reality. This can be thought of a "heads up display for your eyes" and will bring about a whole new level of RealVR. Private company Magic Leap is well known in this space and has raised a staggering \$1.4B as a private company without products. So the M3000 is interesting but we are suspending judgment for now. It's a subject for a subsequent note.

Lastly, we have the Vuzix VR line which is the iWear video headphones. We've got mixed feelings about this product line (see bear case points below). On the bright side this is a strong product in a very competitive market, especially for drone pilots. Management claims it's contributing revenue and profits at levels that make them want to continue with them, but we're thinking differently. Here's why:

The M300 has little, if any, viable competition and sells for \$1500 (MSRP) and the iWear has lots of competition and sells for \$499 (MSRP). At the same time, the market size for AR is bigger. Why mess around with iWear? Especially if the M3000 will be a big growth area **on top of the M300** in 2018?

---

<sup>3</sup> More information including specifications can be found here: <https://www.vuzix.com/Products/m300-smart-glasses>  
VUZI RealVR Note September 2016

## Stock and Valuation

The current market capitalization of VUZI is about \$160M. It's dwarfed by competition and market opportunity. However, VUZI has disappointed investors in the past in terms of execution and the shares have spent over a year in the \$6 range (see chart) before recently breaking out to higher prices.



At current prices the market cap of VUZI is about \$160M. Intel owns a big piece, so does management. We're not going to talk about the market opportunity for AR and VR which are both big but instead focus on what the company might do next year. If the M300 launch is successful, the company states they can deliver as many as 50,000 units per quarter thanks to their tier-1 contract manufacturing arrangements.

Even if they can only sell 2/3rds of potential volume and have to give 20% discounts versus MSRP, we are looking at a \$250M revenue year in 2017. One would expect at least 1-2x sales as a trading multiple and 2-4x sales as an M&A multiple. That would drive very high share prices relative to the current levels. Putting a mid-range 2-3x sales multiple on the stock would put the market capitalization at \$500M to \$750M, or \$30 to \$45/share. To be fair, the company would probably need more working capital which might be slightly dilutive and result in lower per-share prices.

What's the downside? If Vuzix management can't make the product launch happen, we'd expect them to be bought for their position, customers and IP. It's always hard to gauge the sale price on that, but it's probably in the \$100M or \$6/share price in a 'fire sale' kind of situation.

We can develop a real IV model in 2017 when there is better visibility on revenues and margins, but given this back-of-the-envelope analysis, the risk/reward seems very much in favor of current investors.

## What's the bear case?

---

There are a few facets of the bear case which are worth considering. Shorts have been active in the shares and as we write this, the NASDAQ reports a short position of 2.3 million shares as of 8/15. That's about a week of trading volume. Here are the main points we hear about:

1. The company has faltered in the past on delivery. Despite using top-tier contract manufacturers they have missed delivery targets. Even now, the M300 looks more like an October launch versus the recently-projected September. Until they deliver volume, this argument will be active.
2. Too many products for a small company. As we noted above, the M300 is the real deal but the company continues to push the VR headset. The M3000 feels more strategic and is also in the AR space. Having a product in the crowded and smaller VR space seems like a distraction.
3. Volume pricing and margins are yet to be proved. With an MSRP of \$1500, the M300 is not cheap. Management claims 60% gross margins and over time they will have a blended level of 40%. However, this is all conjecture until we get to the real numbers.
4. Capital raises keep diluting current investors and reduce real returns over the long term.
5. Management is more about "R&D" than execution. This is true to some extent in that the CEO is really a scientist and technology guy. He's been doing this a long time though, and has a major stock position. Our first impression is that he is not a "head in the clouds" technical CEO type like the ones we have encountered at public companies like Applied DNA (APDN), for example.

A more comprehensive short case is made by professional shorts like StreetSweeper, but they use details to "paint a picture" that looks like outright fraud. To be fair to them, Vuzix has spent money on IR programs and worked hard to make people aware of their opportunity and their stock. An informed read of the StreetSweeper report makes it clear they are omitting any positive aspects of the investment case. Any long-term investor in Vuzix would not be concerned about the points they raise in their most recent missive<sup>4</sup>.

**Shorts have to believe that the M300 will not ship in volume in Q4, or if it does, won't satisfy customers.**

In the interest of being balanced here, one case not made by the shorts is more worrisome for us – that's the possibility that the success VUZI has will attract "fast followers" in 2017 and 2018. We like the position VUZI has and wouldn't expect them to lose it, but this could put pressure on price and challenge margin assumptions.

## Conclusion

---

We've done enough work on Vuzix to know it's a great name for investors to focus on as the VR/AR market unfolds. We would strongly encourage everyone to spend time with the products and the management team to appreciate this opportunity. It is clear management has some even bigger aims beyond just AR as they consider the M3000 and future products. We're going to wait to see how they can capitalize on the M300 before we do our next installment.

---

<sup>4</sup> <http://thestreetsweeper.org/article.html?c=3&i=25275>  
VUZI RealVR Note September 2016