



**Liolios 7th Annual Gateway Conference
September 6, 2018**

This transcript is posted on MicroVision's website for the reader's convenience and prepared by a third party. Readers should refer to the audio replay, when available, on this site for clarification and accuracy.

Link to accompanying slides and video used in this presentation:

Slides: <http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9Njk5NTQ1fENoaWxkSUQ9NDExMDQ0fFR5cGU9MQ==&t=1>

Video: <http://www.microvision.com/advancing-smart-speaker-capabilities/>

All right. Good afternoon, everyone. Our next presenting company is MicroVision, which is traded on NASDAQ under the symbol MVIS. Here to tell you more about the company is MicroVision's Chief Financial Officer, Steve Holt. Steve?

Stephen P. Holt, Chief Financial Officer

Thanks. Thank you, everyone; Steve Holt, Chief Financial Officer at MicroVision; thanks for being here. We have the usual Safe Harbor statements and then we get into the slide.

We think that artificial intelligence is the product. It's not our product necessarily, but it's the product, it's the product that is changing the way we buy, consume, interact, and it is the product that will be driving changes and behavior and commerce for the next decade: \$19 billion spent on that growing to \$52 billion in 2021, it is the product, it is the driving force right now for commerce.

So, if you consider artificial intelligence as a brain, then the typical user to listen, can speak, can answer basic questions for you, it could perform simple tasks. As we see it today we think about it in terms of voice assistance; Cortana, Alexa, Siri, Google, these are types of products.

So what MicroVision is trying to do here is to provide that brain with the ability to display images, recognize touch and gesture, and sense the space that it is – that the AI is in. And we think that if you're able to do that, then users are able to more seamlessly and naturally interact with the technology, becomes less about the technology, more about the experience. And then the user is going to be able to transact with that AI system in a more natural way. So, we say if it's easier to interact, then it's easier to transact. And this of course drives monetization for the AI platform and will generate more revenue for those companies who are investing billions of dollars in AI.

So the way we're doing that is through what we call five vertical markets. These are all large markets with significant opportunities in them. We will go through each one of these one at a time, but generally it's the interactive projection in our Internet of Things products, a consumer

LiDAR product, automotive LiDAR, augmented reality, virtual – merged or mixed reality, and then display only. So those are the five ways we approach the market.

So the first is on the interactive products, we refer to this as our interactive projection. And so imagine your home speaker and you want to talk – get information, exchange information, about to do transactions. And today it's somewhat limited, it's only going to give you choices. I went to a voice conference recently in New Jersey and I said, voice is great, but when you're making choices it's really tough, nobody wants to listen through four or five choices and have to pick one. And so we see display as being the way to unlock this.

And the display is great, but what if you can also touch that projected display and interact with it? And so we have developed the ability to actually touch the display that we have, and so you can then make choices; hit by buttons, type in a message if you needed to. But in conjunction with voice you're able to see choices and interact. Again, some information is easy to get through voice; but what's the traffic? I rather see a traffic map. Those are the kinds of things where being able to project and being able to zoom in on the traffic map with my hand using a common gesture would be a way to get that information more easily.

On consumer LiDAR, our solution is to provide a consumer-grade small cost-effective LiDAR module that's able to scan a room has a range of around 10 meters and give 20 million points a second of data about what's happening in the room. So what you're able to do is have a smart home environment now start to sense and see what is actually happening in the room, so that you don't get a trigger that something walk through the room because it was your dog and of course your dog walks through the room, they do that all the time; or that it was a raccoon that came through the dog door, not a dog, so therefore we should be alerted and worry about that that there; or you're having a dinner party and there's five people there or ten people there and the next thing you need to turn the heat up or down and adjust for who's in the room. And so the system can start to identify what is actually happening in the room and therefore make the adjustments that need to happen.

In automotive LiDAR our focus is really on the collision avoidance systems. So, we're focused on this 30-meter zone where we can see what is happening around the car. Use machine learning to make – identifying objects, identifying what's happening and then also tracking the devices and objects to see which of those might be a threat to the car and then be able to send messages and information up to the back-end system about these are things you need to look out for as the car is being piloted down the road. And that's where we see ourselves playing our system, again, with the 20 million points a second of cloud data of 3D, point cloud data and are going to put machine learning out on the device and pass information up to the main system that helps that system make decisions faster and we think is a competitive advantage that we have there.

On the augmented reality, virtual reality or mixed reality. Our system of being able to put a MEMS scanning display on a headset that is small, lightweight, low power, high definition, high frequency so that it is gives you a large field of view and it gives you something called low persistence. And so where persistence is as you turn your head you don't want the image that you saw there to persist in the background as you turn your head, you wanted to refresh and be at the next spot. And so as a result our system because we're scanning all the time at a very high rate of

speed you're able to paint the image where it should be in space very rapidly. So that persistence creates a good user experience for these augmented reality goggles and glasses.

And finally of our five, we have the display only products. In the display only products we did in May of this year we licensed our display only technology to a company. Can't give you the name, but it's a major company that you would know. We licensed them the ability to make and sell our display only modules, for a five-year exclusive license for that. It's a \$10 million license fee that they paid, \$5 million they paid back in June and another \$5 million is due in October. We do expect to have some NRE related to that non-recurring engineering work where they want us to do various things for them. And we expect that that to be \$3 million to \$4 million of work. They will purchase components from us that they will then incorporate into their display only modules. And there's a minimum requirement for them to maintain their exclusivity. If we put this in the context, people say, well, how much was that minimum requirement? We can't give you the details on the quantities but we look at that and say that's roughly \$20 million of business to us in terms of selling them components if they maintain their minimum. So we should have \$20 million of revenue plus or minus depends on product mix and various factors but that's gets you in the ballpark of where we see that.

And you know some folks ask why this licensee? Part of it is that they share our go to market strategy of targeting tier 1 customers. We're targeting tier 1 customers, customers that can move significant volume. And so, the licensee shares that philosophy of who to go after for customers. They have some of the right attributes as to be successful in this space. And one of them is the ability to produce at high levels and to bring costs down. And this company is a significant company with significant revenue and manufacturing expertise and the ability to bring the cost of these display only modules to the right space. And they have also the technical capabilities that are needed to be successful. And also there they have experience with dealing with tier one folks as well.

And then the other advantage here is that as they buy components from us for their customer that helps us reduce the cost of the products that we're selling because our products and their products use many of the same components, same MEMS, ASICs and things like that. So we get some economies of scale from their volume going through the product.

That's really interesting, but is there any anything going on in the market that would say you all are right? And we think that there is. First, you probably know that Google acquired Nest and Dropcam and that make sense if they're thinking about smart home. And then we saw recently where Amazon bought Ring which is another camera kind of system, so that's a dot that we think makes sense.

When you look at the smart home speakers, do they really need a display? You've seen that there's various products and we have the Google put out this smart speaker here with a somewhat large display. And so there is a sense that, yes, you do need a display to go along with these speakers to help with the exchange of information. Amazon came out with the Spot has a very small display in it. Again, we look at this and say, yeah, that's some data that shows that. Yeah, having a display is good, but having a big display like on the previous slide maybe isn't so good. So here's the small and of course small has its own disadvantages. But the idea is that the

idea of putting a large display [physically] in your calendar or on your furniture that doesn't seem to us that it gets a lot of traction.

And then in augmented reality, Microsoft's got HoloLens and Facebook is Oculus where they have made various announcements about augmented reality. And here this past week we see Apple bought Akonia Holographics for augmented reality to make lenses for augmented reality goggles; so there's some more indication that these big players are definitely focused on this augmented reality market. And we also see that smart speakers are increasing, evolving, the sales and have increased. There's many different types and we see that these smart speakers are really starting to become a major product category that is really driving technology adoption.

We also see another trend is machine learning on the edge...We've put machine learning out on the sensor on the device is getting some additional industry support. Here in these headlines that various chip makers are focused on creating chips, that would help create more machine learning out on the edge. So we think that's a good validation of our premise that machine learning on the edge is the way to go.

So some of you may not be familiar with the way our technology works. The animation here tries to explain that, but we take for displays, we take red, green and blue lasers. We fire them at varying intensities to create the pixel that the color of the pixel that we want. And then we shine that pulse those lasers into MEMS mirror that is vibrating in a raster. And by modifying the way we pulse these lasers we get the color we want and by moving that mirror very, very fast in this raster pattern we create the image of whatever we try to display, video, stills whatever that's how it works.

When you talk about our LiDAR products, interactive display, consumer LiDAR or automotive LiDAR. In the interactive display, we simply add an infrared photodiode and a photo detector and so we are pulsing the red, green, blue and the IR laser all at the same time. And that post light is going off the mirror at the same time and it's painting a raster pattern. For our consumer LiDAR or an automotive LiDAR we don't need the red, green and blue at all, so we just take them away and you're just using infrared. Okay. Because we control our mirror very precisely, we know in space the X and the Y when we post that light, so we know where it is horizontally and vertically. By measuring the time of flight of the infrared light and coming back to us we now know the Z and that's how our Infra or LiDAR system works.

So I have a video demonstration. So this is the interactive projection which shows you how we see our interactive projection product could work in a sort of speaker – smart speaker platform.

[\[Video Presentation\]](#)

So it's a good example of how we see it works, how the interactive display works. And we're happy with the way that product is shaping up.

So some people, okay, why doesn't somebody else come in and do what you do? Well, we have a really good IP position and we've got about 500 patterns issued and pending, but in addition to

the patterns we have a lot of knowhow and a lot of trade secrets that that go into protecting our intellectual property. We have also custom asics, custom hardware, firmware that's been developed over the years, so there's quite a few barriers to entry. So we think we have a very strong position in that regard. And the fact that we've been able to do some licensing deals with folks like Sony and the current licensee, the fact that we've developed and have some large development contracts in other companies that are top technology companies gives you indication that they too believe we have the expertise required and IP position that's not easily duplicated.

On the financial highlights, we had \$21 million in cash at the end of the last quarter. We don't have any debt, revenue this year is running roughly double of where it was last year and obviously we're focused here on this slide about the last line there which is trying to achieve profitability at some point 2019.

So for us, this year is about getting our products ready and in the sales cycle to be able to have products that launch with our technology in them. And in 2019, the goal for us is to drive that so that we have a profitable period of time in 2019. Probably not the whole year, but we're shooting for some parts of the year we'll have profit.

When you say okay, where would that come from here we sort of a handicap those five verticals and said where does the revenue come from? So, AR/MR smaller dollars maybe some NRE, it's the display and then skip the line down the interactive display those are the two that we think have the highest potential for revenue in 2019. We also have the consumer LiDAR product that we're working on that we expect to have ready for production in 2019, and we believe there's a good shot, that will also generate revenue in 2019. And then automotive LiDAR we see that is perhaps some NRE. But again for that and for the admitted reality, the volume on those would more likely be 2021, there's a little further out inflection point for those products.

The way we do business for these five verticals, for the four of them we're basically doing this box over here on the left which is integrated software and hardware module sales. So that's what we're our focus of our business is to sell these modules two companies that will incorporate them into products. We also have cases where we will give a design or make a custom product and then sell components along with that. And there's a development agreement that we have where we are doing some development work and then we will sell components to that customer when they take that product into the market. Additionally, like we did here, we will license our technology, we did with the display only and then on occasion we'll do some engineering services. Main priority for the companies really to sell those modules in 2019 and beyond that's where we see the focus for the company.

Highlights. We're addressing the large, large markets. With significant opportunity in over the next several years to really go. We have experienced management team, Perry Mulligan came in just about year ago here in November as our CEO; and Sumit Sharma who is our Chief Operating Officer he's been instrumental also in driving our products strategy. Strong intellectual property, as I said with over 500 patterns and a lot of knowhow, innovator and laser beam scanning. And we've got opportunities with our licensee and then this \$24 million contract customer that are already set up doing to look for 2019.