SEAN O'SULLIVAN: So I'm not sure if you can see that, but it's a tree. And I like to compare the transport network to a tree because, like nature itself, transport networks grow organically based off of the transformation of society over time. And when you think of a tree and the branches of a tree, it's analogous to where we live, and the roots of the tree perhaps can be analogous to where we work. There's a trunk in the middle between the branches and the roots, and those are the major transport corridors that we travel.

And when we think of the transport network, we'll be referring back to this analogy because so much of the challenge is—that we all face are from getting from where they live to where they work, and to effectively do that is actually kind of complex to do with the changing nature of society and the changing needs of society over time.

So, back to the problems that we all know, just to quick recap on talking, you know, preaching to the pope here. You guys already know all these issues. You know, but sometimes it's useful to just recap them quickly. Four hundred thousand people net adds to the planet every day. That's the equivalent of the city like Long Beach, California every day, 365 days a year. Each of those cities that's created every day needs oil, gas, cars, all that stuff to get around. So, because of that and, you know, congestion is growing, infrastructure can't keep pace, the oil supply is depleting. Okay, you can read all the bullets.

You know, on the end result of all of this is that we are sort of staring an obvious solution in the face because of the nature of most people using single occupancy vehicles to get to work. Very few are relying, because of the nature of the tree, of where public transit runs from and to, very few people have the ability to rely solely on public transit. They have to combine forms of transport like using vanpools to get most of the way to work and their car to get part of the way to work, or other ways to increase the efficiency.

But 85% of all seats on the road are empty, that's something—that's an opportunity for us to try to improve the situation. And that's what Avego is looking at with shared transport. And we have a gadget you put in cars in our own technology that enables private vehicles to take their excess capacity and offer them to the public. So I'll show you that in a second, but just to, you know, briefly cover the concept, obviously it's like ridesharing, but the difference is, you know, we're basically trying to make people realize the road is not full, not congested, it's really mostly empty. If we could do something to fill up that emptiness and make it in the interest of the driver and the rider to recognize that those empty seats in the car, say the driver's in one of those seats, if they can, you know, charge for the empty seats to recover the costs of their journey, then there is a possibility that, you know, we can stop that waste.

We have to transform people's understanding. As they drive down the road, they have to be thinking, "Oh my God, there's empty seats in my car. I'm throwing money out the window every mile I drive." And if we can get people to recognize and to rethink that waste. So it's a big thing if you can get people to cooperate in being part of the problem and to use consumer self-interest to, you know, enable behavioral change.

So this is what Avego is trying to push with this idea of being able to recover the cost of driving. The best way, of course, the most efficient ways are using public transit. Using vanpooling is the most efficient way of any way because just in terms of environmentally, in terms of cost, its lowest cost. But if people don't do that, if they are going to drive a car, what we're trying to do is say, okay, you know, if you share your car, you'll get the vast bulk of all the revenues. That goes straight into your pocket. The passenger—so the driver can recover up to $8,000 a year, tax free, $8,100 a year for the average consumer. And the riders are paying less than they would if they were, you know, driving their own car, say.

So the way that the system works is, you know, there's a bunch of different components. We could talk about that if anyone has any questions.

Okay, so, actually right now I'm just going to go straight to a little video showing how this works. I hope you can see the video.

NARRATOR: [video playing] Say I'm the rider and Harvey's the driver. We're both on our morning commute in Dublin, except today, instead of taking my own single occupancy vehicle into work, I decide to Avego into work. I can check availability of services either over the web, through an iPhone client, or through any regular cell phone. As a rider, I can be notified by either SMS, e-mail, or Apple push events when the driver is, say, 3 minutes away. So I can enjoy my coffee until the last possible minute.

"THE DRIVER": [video playing] As the driver, I don't have to change my behavior. I turn on Avego and I [**AUDIO INSTRUCTION**: "Passengers are up ahead."] would drive as I normally would. [**AUDIO INSTRUCTION**: "Offer lift?"]Using GPS, it learns where and how I drive. If there is someone on my route who wants a ride, it works out the match and notifies me. I choose to share the journey in order to share the cost.

AUDIO INSTRUCTION [video playing]: "Lift accepted."

 "THE DRIVER": [video playing] When the riders are to be picked up, they appear in front of the car. Those inside the car are alongside it and those behind the car are the ones I've dropped off.

NARRATOR: [video playing] As a rider, all you need is a mobile phone. When the rider meets the driver, he asks him to provide a one-time pin code which authorizes the transaction as well as proves his identity. [music]

"THE DRIVER": [video playing] So you can see when I'm driving along with my passenger, the distance to their drop off point is counted down while the value of the journey is counting up, much like a taxi. I can switch to look how far I am from future pickup points and also get a map view. So, I'm picking up Sean, I'm bringing him to this drop-off point. As I approach, it guides me in; it shows me where to drop him off. So [**AUDIO INSTRUCTION:** " Drop off passenger."] I'll drop him off and then I'll continue my journey to my destination. When I get there, the service prompts, asks me to rate the passenger.

 "THE RIDER": [video playing] Likewise, when I get out of the car, not only do I get a receipt of the transaction, but I get to rate the driver any way I'd like.

SEAN O'SULLIVAN: Okay, so that's a bit of an overview. In terms of—thank you for turning up those lights, thanks. In terms of how that works, you know, basically the average commuter drives about 17 miles. So that route that they drive becomes part of the public transit network once they record it in the Avego system. And the stops that are along that way, the places where people could pick up or drop off passengers, they also record. So the user generates all that information. So I'm one rider and I'm going into Cork, this is a map of Cork City, in Ireland, and showing where—you know, there's actually, you know, tens of thousands of people across the world that have used this, not yet at a critical mass. Not yet to a place where it's useful on a daily basis for a large population. But it is really an experimental travel network at this stage. We're hoping to accelerate that. By the end of this year, we should have about 300,000 people, which is still not a huge number, but it is starting to become, you know, an important number over time.

So these routes grow organically and over time you may have one driver who drives one route, and then a mesh develops over time as more and more riders and more and more drivers enter the network and you have basically an addition, which basically becomes a transit network by itself, a shared transport transit network overlaid with the bus network, which then allows you to interchange. And in places like in Madrid, for example, we're working with the city of Madrid, and the subway and bus agency in Madrid is part of a EU research project to have multimodal transfers between shared transport and, you know, this dynamic ridesharing kind of thing. Or excuse me, shared transport and buses and subways.

But the consumers expect, you know, highly convenient, good value, comfort and safety. This is still a little too early for this to be highly convenient for a lot of people. However, we are seeing—it's not going to be highly convenient until there's a critical mass in a given area. So how does that happen? How do we develop a critical mass of users where it becomes a highly reliable service in one city or in one campus or something like that? Well, we start, you know, one system at a time. And so we are working with some cities, some—you know, like as I mentioned, in Madrid we're working with some big employers like the largest utility company in the UK, you know, through van pool companies, through campuses, universities to provide a layer of reliable services in certain, sort of, if you refer— think back to that first opening picture of a tree, to provide a reliable trunk corridor services where the service will be very, very, very successful, but it will take a while to then branch out and extend the network to where we'll be successful in more regions. So that's how we're hoping to develop this.

I know that everyone is concerned about safety and they think "Oh my gosh, you know, what about if the person who is driving is, you know, really evil?" So the fear that people have is actually I think a little bit overplayed. If you think about where this type of technology has been—or not even technology. Without technology, this is being done in the form of slugging and casual carpooling in San Francisco and Washington D.C. for the last 30 years with no incidences, you know, of violence other than, you know, several years ago there was a carjacking and the car was recovered the next day in San Francisco. I mean, there is—it's very, very—the reality is that it is nowhere near as bad as people think. And all you need is one—you just need to compare it to other modes of transport where, like, you know, public transit, for example, extremely safe. Three hundred people die in public transit a year versus

50,000 die in the roads. If you put a second rider in a car, the likelihood of them having an accident in that car goes down dramatically. That's one of the reasons why insurance companies love this.

So if you have a carpool, insurance companies love that because why? It's much—they have much lower payouts because the guy isn't going to get in an accident if there's another driver, if there's another person in the car. So, for whatever reason, people drive more dangerously when there's only one person in the car, whether it's, you know, distractions or whatever else. And so it's actually safer.

But you know, despite that, there's perceptions that we have to overcome and the other piece of the reality that shared transport hopefully brings into the picture is unlike, you know, when your mother told you not to talk with strangers, and unlike even the successful systems like slugging and casual carpooling, in this case you're not actually riding with strangers. You're riding with known entities. Each person who's part of this system is known. We have the phone number and the billing details of every rider and driver. So they're completely known entities.