Cat Hofacker: Just start by setting the scene for me. Why Flirtey? Why drone delivery? And what do you envision the future of this industry to be?

Matthew Sweeny: Well, thank you. So, we're at Flirtey, where we see the drone delivery industry as being at today, is at the inflection point for the rapid growth of the industry. So I think we're at that really key point currently, and so why? And what does this mean for society? Well, at its core ... Well, I'll start with Flirtey. So at Flirtey, our mission is to save lives, and improve life styles by making delivery instant for everyone. And so we envision a future, and we're building a future, where drones will routinely deliver AEDs to people who've had cardiac arrests, to save lives. When people want food on demand, they can push a button on their phone and have a Flirtey drone deliver it, with a goal of that arriving in less than 10 minutes.

Matthew Sweeny: And a world that ... We live in a society where people want instant gratification, and the internet enabled instant purchasing. But we're not yet at the point where the logistical infrastructure enables instant delivery and fulfillment. And so drone delivery is that next revolution, just like the internet came along to enable instant purchasing, drone delivery will enable instant delivery. And that enables a world where people who want instant gratification can have it, for anything that they buy.

Matthew Sweeny: And so that's the world that we're building, and if you take it back to first principles, the core value proposition of drone delivery is threefold. First is fast delivery, and so at Flirtey our goal is to enable 10 minute delivery for our customers. And this is in a world, for example, in the on demand food delivery industry today, where many of the largest on demand delivery companies average about 60 minutes a delivery.

Matthew Sweeny: So, this is a significant improvement of any other form of technology that exists to enable people to have what they want, when they want it. Then the second core value proposition is that drone delivery is cost-effective. Flirtey already has FAA approval for one about remote pilots to oversee the flight of up to 10 drones at the same time, and each of our drones can do more than four deliveries per hour.

Matthew Sweeny: So what that means as our industry grows, is that one Flirtey pilot remotely over seeing our autonomous delivery drones, can do 40 deliveries per labor hour. And if you compare that to the traditional on demand delivery industry, in a lot of the on demand delivery leaders today, the most efficient riders average one to two deliveries per hour, so we're bringing a technology to market that is 20 to 40 times more efficient, in terms of the labor cost per delivery, than the current on demand delivery market.

Matthew Sweeny: So it's revolutionary not only from a speed perspective, but also from a cost perspective. And in addition to that, there's a really important element of efficiency. I mean, we don't think it makes sense to have a 4,000 pound vehicle deliver a four pound package when we have delivery drones that are fit for

purpose, and more efficient. And so, if we for example, think about efficiency from the perspective of lowering emissions, then delivery drones significantly lower emissions in package delivery over trucks, cars, or even autonomous electric vehicles that have significant emissions during the battery production process.

Matthew Sweeny: And so having a technology that is fit for purpose also significantly increases efficiency, and takes delivery vehicles off the road in ... Which is really important in the world that we're building. So I think we sit today at the inflection point of the commercialization of a revolutionary new technology, that is going to transform the way we get our goods and packages faster, at a lower cost, and more efficiently. And I think this is just as revolutionary as the invention of the automobile was, or just as revolutionary as the first flights that the Wright brothers conducted were, because they both pioneered revolutions in logistics. And that's exactly where we're at today, and Flirtey is excited to be on the forefront of that revolution.

Cat Hofacker: Yeah, it's really cool and the future that you're describing ... I mean especially quicker food delivery. I know all too well how long it can take to get food delivered in the city. So yeah-

Matthew Sweeny: I do too.

Cat Hofacker: It's an exciting idea. So when you were talking there, the picture you were painting for me, it definitely seems like you think drones will replace delivery trucks, vehicles, whatever, for some purposes. But do you, on some level, I mean you're going to have to work with, obviously, other vehicles in some way, because there might be some packages that are just too big for drones to deliver. So do you see drones being another method by which we get delivery? Or is this going to be the end all, be all of delivery?

Matthew Sweeny: That's a great question. The analogy that I would draw is that when the internet came along, it didn't replace the radio or the television, but it certainly became dominant in capturing market share. I think that's where we will be in the near future with drone delivery. There will still be packages that get delivered by traditional means, but drone delivery will become a dominant method of delivering, and capture enormous market share because it is a faster service, that is more cost effective, and better for the environment.

Matthew Sweeny: And so, I also think that, given that Flirtey is in a very unique position of being a full stack developer, we've built out drone delivery technology from the ground up, after we hired the head of NASAs drone program. We've built our aircraft, we've built the Flirtey Eagle, we've built our take off and landing platform that enables us to employ a modular and scalable infrastructure, so that ultimately any mall in America that wants drone delivery can have Flirtey drone delivery. And we've built the software that enables our drones to fly themselves autonomously.

Matthew Sweeny: And by virtue of us being in this position, where we've built a full stack technology solution, we're in a position to partner with existing on demand delivery leaders, or other companies to provide our technology to enable them to increase the profitability of their existing core business, and bring in new sales from new customers who want the convenience of drone delivery.

Matthew Sweeny: And when we look at the numbers, our aircraft was built to carry about 75% of all of our customer orders, based on an extensive work that we've done on the order compositions that our customers have. To think about what the future looks like, in terms of market share, from our perspective. I see a future where three quarters of packages are delivered by drone routinely, and that becomes the dominant method of on demand delivery. That whilst these other methods of delivery still exist, I think that when we live in a world where you can push a button on your phone and have a drone deliver your package in less than 10 minutes, I think people will, and it will become a dominant form of delivery.

Cat Hofacker: Yeah. And at that volume, it sounds like you guys are going to need to manufacture these drones like crazy.

Matthew Sweeny: Yes.

Cat Hofacker: Can you talk about the production aspect a little bit, because I don't know where you guys are with that, and obviously we don't have to ... Obviously no proprietary information, but what you can share on that.

Matthew Sweeny: Yeah, I can share that at Flirtey, one of our top priorities is the safety of our technology, and the scalability of our service, and so to ensure that we are building our delivery drones in house, in the United States. And from my perspective, I mean if you look at just the drone market as a whole, we view a very big distinction between the hobbyist world and the commercial world. So in the hobbyist world you have a Chinese company that makes 80% of all of the drones sold in America, and those drones were previously used by the army, until they were banned, and now previously used by the Department Of The Interior, until they were banned, out of concerns that the data on military operations, and American infrastructure could potentially be transmitted overseas.

Matthew Sweeny: And so I think it's really important for the national security of the United States that there are domestic manufacturing's of small delivery drones, and Flirtey is on the forefront of that. If we then move from the hobbyist industry to the commercial industry, the major distinction is there are Chinese companies that are just mass producing low reliability drones that are used for hobbyist purposes. At Flirtey, we've built a manufacturing base for high reliability manufacturing with quality assurance procedures, to build commercial delivery drones that are closer to aerospace standards than the lack of standards in the hobbiest world.

Matthew Sweeny: And so I think it's just really important from our perspective, to draw that distinction between hobbyist drones and commercial drones, and Flirtey is very much focused on building high safety, high reliability, high scalability, commercial drones. Which will not only serve the purpose of drone delivery, but also provide a very important manufacturing base for small drones in America.

Cat Hofacker: Yeah. And then could you speak a little bit as to the design of the drone, because I know I've seen a couple of different concepts that different companies have proposed. And one thing I noticed with you guys specifically is how you lowered the package via a tether. So the drones are not actually landing anywhere and there's minimal human drone interaction. So that seemed like that was an important thing for you guys to have in the design. I wonder if you could speak to that a bit.

Matthew Sweeny: Yeah. So the way it works is that we've designed our technology, including the Flirtey Eagle, to hover and precisely lower its contents by lowering a tether from hover, at a height that is above trees, and above power lines, while the drone's suspended in the air. And then once the package is delivered, the drone retracts the tether, and then returns back and does an autonomous precision landing on top of the portal, so that it can then be reloaded and conduct another delivery.

Matthew Sweeny: And this is really important, and this comes from our philosophy at Flirtey, of having a safety first mentality. So as we looked at ways to deliver packages, we concluded very early on that the safest way to deliver a package by drone is for that drone to be above trees, above power lines, at a distance from any potentially malicious actors, so that it could just precisely lower that package to your front doorstep, your backyard, or to the hands of a waiting customer.

Matthew Sweeny: And we have now filed patents that protect these inventions that we've got around precision delivery, and we think that it's just by far the safest way to deliver a package, and likely to become a universal standard in the drone delivery industry. In addition to that, we've also done a lot of work in the safety of the aircraft itself. So as I mentioned, we hired the head of NASA Langley's drone program who was in charge of drone flights over people, and in controlled air space, to lead our engineering program. And part of what he led was the design and development of, for example, a parachute system for safe flight over people. And the US patent office just granted us a patent, that gives us the ability to detect an error, and send a trigger to release the parachute, but also gives us the ability to have a cut off circuit that can, for example, apply a brake to the list mechanism of the drone.

Matthew Sweeny: And it can also, for example, be independently powered, and this patent's been granted and we believe it's going to become an industry standard, because anyone that wants to fly delivery drones over heavily densely populated areas, we believe is likely to need an independent safety mechanisms that can apply a break in the lift mechanism, for example, an independent parachute. And that this is now likely to become the standard for how delivery drones operate all around the world, and they're proud to be on the cutting edge of these, not only

innovative inventions, but inventions that are optimized for the safety of our flight operations.

Cat Hofacker: Yeah, and it's interesting how you were talking about that, because I remember however many years ago it was now, when we first started talking about the concept of drone delivery, and I remember a lot of people being freaked out at the time. They were like, "Oh my God, it's going to follow me. It's going to interact with me." They really didn't like the idea of this thing coming into their backyard, or wherever, and delivering their packages that way. So I think some of that's going away now, as you guys and other companies are developing these systems. But are you worried at all? Or do you think some of that is going to linger when commercial operations do begin? And I guess what do you do about that?

Matthew Sweeny: Yeah, it reminds me when Henry Ford invented the automobile, there are a lot of people in society who were concerned that it might interrupt the horse and cart. And so there were red flag laws that got passed, that said not to drive an automobile, you had to have a person walk in front of the automobile carrying a red flag to ensure separation between cars and horses. And naturally that limited the utility of cars. Right. But eventually it was demonstrated that technology is reliable, and that the society not only accepts it, but wants it, and needs it.

Matthew Sweeny: Because cars led to a revolution in transportation and logistics, just like delivery drones are leading to a revolution in logistics and package delivery. And so I think anytime you have a revolutionary new technology, there are people who have a tendency to be afraid of the unknown, and as a result I think it's incumbent on the companies in the industry to really take steps that earn the trust of society, and so for example at Flirtey we see ourself as the independent alternative to some of the larger technology giants, in what we see are the David versus Goliath industry. We're nimble and also importantly we've got privacy driven core values, where our focus is delivering packages.

Matthew Sweeny: Whereas some of our larger competitors, they're focused on just collecting as much data as possible to trade on it. I think by being that independent, safe, privacy conscious, and trusted brand in drone delivery, not only do we help win support of the community, but we help bring a service to market that's going to have a tremendously positive impact on society.

Cat Hofacker: Yeah, definitely. I did want to touch on one thing about that, because I ... Well obviously one difference between drone deliveries and when we had the automobile is that there is going to need to be a certain level of autonomy with these things. And I wonder if you could speak to ... What do you think the right balance is there between ... We need a certain level of autonomy if we're going to scale up these operations and actually meet demand, but human operators do play a role in some respect.

Matthew Sweeny: Yeah. So I think a lot of people may not just be aware of how autonomous our technology already is today. So in 2019 we received FAA approval for a combination of flying delivery drones at night, flying up to 10 drones per remote pilot, and flying beyond visual line of sight of the remote pilot. So for us, our technology already has a very high degree of autonomy to enable one pilot to oversee up to 10 autonomous delivery drones flying and delivering packages at the same time.

Matthew Sweeny: And so the way we see autonomy is that we've already built it, but that as we think about scaling it, it's from our perspective, it's important to ... We think it will be important for the foreseeable future to have a human on the loop, and what we mean by that is our delivery drones have the autonomy to fly themselves, but we have a human in the loop similarly to how you would have air traffic controller in an FAA tower, where planes are coming in and the pilots are landing them, but you have a human on the loop so that in the unlikely event anything would've gone wrong, they can intervene.

Matthew Sweeny: And so at Flirtey our model is to have remote pilots who are over seeing multiple autonomous delivery drones flying themselves, who for safety purposes can intervene if they need to, but shouldn't need to because at the high level of safety and autonomy that already exists in our technology.

Cat Hofacker: Okay. Yeah. And so how do they monitor ... I'm a human operator. I have 10 drones flying at once. How am I keeping tabs on them?

Matthew Sweeny: So at Flirtey we've built our autonomous navigation software, which enables our pilot to see a live display of all of the delivery drones that they are over seeing while they're conducting their missions. There is health monitoring in live time. So if anything deviates from the expected operation then our human pilot can be notified, and then make a decision as to whether or not they issue a command to the aircraft, for example, to bring it in to land.

Cat Hofacker: Okay. Yeah. Very cool. I wanted to change gears a little bit here, because I have the questions out for you guys on your participation in the IPP. So that will be taken care of on that end, but I wanted to hit that issue a little more broadly, because I know that you guys are also doing some test flights in New Zealand for example. And a lot of countries right now seem to be moving forward on a path to drone deliveries, but they're all taking a little bit different ways to get there. Like I know for instance, New Zealand doesn't really make that distinction between like commercial and the hobbyist, that you were talking about earlier. So in doing, and working with the regulators in the US, and in other countries, how do you describe the differences in that approach, and how do you think that will impact operations going forward in different countries?

Matthew Sweeny: So yes, at Flirtey, we have a great relationship with the CAA in New Zealand, and we've previously conducted the first pizza by drone deliveries in partnership with Domino's in New Zealand, we were delivering from a Domino's store to customer homes. We also donated one of our delivery drones to the MOTAT,

which is the Museum Of Transportation And Technology in Auckland. That was the drone that conducted the first drone delivery in New Zealand. So some countries like New Zealand, nimble and incredibly forward thinking. And we have great, great relationships with, and I think that New Zealand is very much on the forefront of enabling commercial drone delivery.

Matthew Sweeny: Currently at Flirtey, our focus is conducting routine drone delivery demonstrations at the Tahoe Reno Industrial Center at Tri Center, which is located in Nevada. And for context, this is the largest industrial center in the United States, it's home to more than a hundred companies, including Tesla's Gigafactory, Walmart, Google, Panasonic, and Home Depot, and the facilities' employee about 25,000 people on site.

Matthew Sweeny: And so we are conducting, right now, we're conducting routine drone delivery demonstrations that are in preparation for routine food delivery on site. And so the reason that we're focused on this opportunity is because our goal is to prove the scalability of our technology, for drone delivery of food and beverages on an industrial campus. Which we view that as a stepping stone to other campuses, other industrial campuses, medical research campuses, college campuses, and other use cases, which are then in of themselves a stepping stone to our vision of store to door delivery. So ultimately our vision is for anyone in America to be able to touch up a button on the smartphone and have a Flirtey delivery drone deliver food from their local restaurant with the goal of that being delivered in less than 10 minutes.

Matthew Sweeny: And so we've got this kind of huge opportunity to improve the scalability of our technology here in the coming months, with the goal of then scaling that model nationally. And so I think that different regulators around the world are taking different approaches. New Zealand is particularly on the cutting edge, but in addition to the opportunity that we have in New Zealand, we're very much focused on Tri Center, because when we look at the drone delivery market, you have the food delivery market, you have the package delivery market, you have the medical market, and the food delivery market is by far the largest market.

Matthew Sweeny: That's over a hundred billion dollar market in terms of annual revenue potential with our current technology in the United States, and our aircraft is designed to carry more than 75% of all packages that we get delivered with the goal of 10 minute delivery. And McKinsey & Company have said that speed of delivery is the biggest factor in customer satisfaction, and BCG, Boston Consulting Group has said that 92% of customers expect their food deliveries within 15 to 30 minutes. So what we're doing is just proving a model that is faster then even the best delivery services today, because that's what consumers want, and it's a massive opportunity for us to then scale it nationally.

Cat Hofacker: Uh-huh yeah. So in going from where we are right now, to like you said, scaling nationally where we have an entire ecosystem of drone deliveries. What do you see as the biggest challenge or obstacle that has to be overcome to bring this, to make this a reality?

Matthew Sweeny: So when I founded Flirtey, I said that there were three obstacles that needed to be overcome to enable the scalability of the drone delivery industry. The first is to build safe and reliable technology, which we've done. The second is to win public support, which we have won and continue to earn, through the safety of our technology, our privacy centric mission and focus, and also important applications of our technology, like delivery of AEDs to people that had cardiac arrests. So for example, we're partnered with REMSA, which is the ambulance service in Reno, and our longterm goal is to be automatically integrated into the 911 network. So if someone has a cardiac arrest, in addition to the local ambulance service sending an ambulance, we can dispatch a Flirtey delivery drone carrying an AED, and nationwide in American today, despite all the money that we spend on health care, 90% of people who have a cardiac arrest in their home do not survive, because ambulances can just take too long to arrive.

Matthew Sweeny: I mean ambulances can still get stuck in traffic. And so through our weapon REMSA we've looked at the historical data on cardiac arrest, and we've concluded that just one of our drones in Reno with an AED and integrated into the 911 network, will save one life every two weeks on average, and that we can increase the survival rate of cardiac arrest from a national average of 10% today up to about 47%, and so when we then take that nationally we project the Flirtey drone delivery can save over 150,000 lives a year, just with AED delivery.

Matthew Sweeny: That's before we even think about delivery of EpiPen, delivery of NARCAN, or any of these other very positive impacts that our technology is going to have on society. So to answer your question, the technology is here and safe, we have won and continue to earn public support through how we intend to deploy this technology in ways that people want, and that benefit society, and through our privacy centric vision. And now we are working with regulators to receive the scalable regulatory approvals that enable us to deploy the technology at scale. And so that's where we're at, and that's why Tri Center is such an important opportunity for Flirtey, because it will prove the scalability of our technology, for us to then receive regulatory approvals to scale nationally and around the world.

Cat Hofacker: Okay. So you don't see the ... Because I know a lot of other operators, the timeline for how in the US specifically the FAA is trying to roll out the UAS traffic management system. The timeline for that seems to be worrying some other operators I've talked to. So you guys don't have that same concern?

Matthew Sweeny: Our perspective is that we have scalable drone delivery technology, and we have applications that the public clearly wants, and needs, and that benefits' society. And we would like regulators to continue to work with us, to enable us to deploy this technology at scale, and from our perspective faster is better.

Cat Hofacker: Yeah, definitely. And then I wonder, could you tell me a little bit about what you guys got coming down the pipeline as far as this year? I know you mentioned

the approval from the FAA to do beyond line of sight flights, but as you don't have the part one 35 certification, am I correct?

Matthew Sweeny: Well, the exact nature of our ... The exact status of our regulatory approval's are proprietary, but I can say, is that our focus is Tri Center, and that then enables us to secure the regulatory approvals to scale our model around the country, and ultimately around the world. And we're working very closely with regulators to attain those scalable approvals.

Cat Hofacker: Okay. Yeah. And then one other regulatory thing I wanted to touch on is, I know there's been a lot of back and forth recently, over the last couple of years, while we're figuring out what this system looks like, and one component of that is the proposed rule, that just came out, for remote identification. And I know a lot of hobbyists were not really happy with that proposal. And obviously it's a process, the rule will likely change going forward. But I wondered what your thoughts were on that role.

Matthew Sweeny: Well when 80% of the hobbyist drones in America are manufactured by a Chinese company, I think it's very important for a number of different reasons, including national security that the operators of those air craft can be identified. I think there's, in the commercial drone delivery world that Flirtey is pioneered and operates within, then of course our aircraft are going to be identified, and we're going to be a responsible operator of those aircraft. So I think in our opinion it is reasonable for hobbyists to also be identified as well. And when we think then about the scalability of our technology, we want to ensure that our commercial operation is unlikely to be impeded by rogue hobbyists, so that we can all share the national aspects and operate together in it.

Cat Hofacker: Yeah, definitely. And one concern in particular I heard from them, is I know there seems to be this debate right now about whether we should broadcast our identities over ... Do we need an internet connection to do that? Or is radio broadcasting sufficient? I don't know if you guys have an opinion on that, or based on your experiences.

Matthew Sweeny: I think what is important is that the identification of aircraft can be transmitted securely and reliably, and there are a variety of technical solutions that can enable those objectives.

Cat Hofacker: Okay. Yeah. And how are we doing on time? Just so ... I don't want to step on you the rest of your schedule.

Matthew Sweeny: I'll have to step into a meeting in the next couple of minutes, but if you have another question, I'll be more than happy to answer it.

Cat Hofacker: Yeah, okay. Final question for you. So I guess you've addressed this a little bit, but no, it's good to just ask the right question. So what specific role do you see

Flirtey playing in this growing industry that you don't think any other company can do?

Matthew Sweeny: Thank you for asking that question. So from our perspective, Flirtey is the pioneer of the drone delivery industry. We were the first. I founded Flirtey in 2013 at the time we were the first drone delivery service in the world. I then realized that to pioneer ... At Flirtey we're not just building a company, we're pioneering an industry, and I realized that in order to pioneer this industry, I'd need to move Flirtey to America from Australia, so that we could attract investment from the leading investors in the world, and so that we could hire the smartest engineers in the world. We did we, we went through YCombinator, which is the leading accelerator program, the startups in Silicon Valley. We raised investment from combination of family offices, venture capitalists and strategic investments. And we then set this incredibly ambitious goal to beat Amazon, and Google, to conduct with first ever FAA approved drone delivery in history.

Matthew Sweeny: We teamed with NASA Langley, we collaborated with NASA Langley, who flew in medicine on an optionally piloted air craft, which we then loaded onto our delivery drones and delivered into the hands of doctors at the largest free healthcare clinic in America. We then donated that air craft to the Smithsonian, and it's going on display alongside the Wright Brothers, Wright Flyer, which we're very excited about.

Matthew Sweeny: So not only did we pioneer this industry, but we have pioneered the technology, the regulatory approvals, and won public support for the scalability of this industry. And since then, since we conduct about fast delivery in 2015, and 2016, we did the first ever FAA approved autonomous drone delivery to a home. We then did the first ever commercial food delivery, and commercial delivery period, with 7-Eleven, delivering food to homes.

Matthew Sweeny: And then we've continued to pioneer the industry, and be on the cutting edge by achieving all of these pioneering regulatory approvals, including ability to fly at night, ability to operate up to 10 drones per pilot, the ability to fly beyond visual line of sight. So that brings us up to the present, and now with pioneering the scalability of the industry by operating at Tri Center, to then enable regulators to see the safety and the reliability of our operation, as we then seek to scale it nationally, and move from pioneering the concept of the industry to being one of the dominant players that is regularly delivering packages to homes all across America.

Cat Hofacker: All right, well thank you very much for your time. Appreciate it, and I will pass along any followups I have if I need any clarifications.

Matthew Sweeny: Thanks so much Cat, all the best.

Cat Hofacker: Yep. You too. Bye. Bye.

Speaker 3: [inaudible 00:36:48]