

## Eyal Amir of Parknav

**Speaker1:** [00:00:04.77] This is the Investor Connect podcast program. I'm Hall Martin and the host of the show in which we interview Angel Investors, venture capital, family offices, private equity, many other investors for early stage and growth companies. I hope you enjoy this episode. Hello, this is Hall Martin with Investor Connect. Today, we're here with Eyal Amir founder and CEO of Parknav, founded in twenty fifteen park nav revolutionizes real time on street parking with the highly accurate and scalable solution using big data. And I Park now brings the most advanced, precise parking available. The information for mobility in smart city transportation and automotive. They provide on street parking, free metered permit, curbside restrictions, traffic control data, as well as data acquisition from city sensors. Park nav is available for over one thousand cities across North America and Europe and has over five point five million recorded parking events. I'll thank you for joining us.

**Speaker2:** [00:01:00.44] Thank you.

**Speaker1:** [00:01:01.40] So what was your background before founding partner of what did you do before this?

**Speaker2:** [00:01:05.60] So I, I had an academic career. I'm I'm originally from Israel. I moved to the US twenty five years ago and went to Stanford for my PhD in computer science, became a professor doing a I for a long time, been enamored in in what technology can do and what I can do. And I was lucky to be a student of one of the founders of the entire artificial intelligence field. And so I was a professor at the University of Illinois in Havana. Champaign got tenure there. And then a few years later, I decided to leave and then start Pakman.

**Speaker1:** [00:01:38.12] And so what led you to start work in the parking space, so to speak?

**Speaker2:** [00:01:41.48] So I saw an opportunity in the information about cities space. Personally, I was living in Chicago at the time and I was looking for parking every time I come home or go to a coffee place and I felt that I could help. There were sensors based solutions that were crowdsourcing based solutions, but none of them was actually solving my problem, which was I need to find a place in the street to find parking. And my girlfriend, who would

come to my place on Friday night, would not be able to find parking. And I felt, well, you know, I must be able to help. So we got together a group of amazing guys and we stumbled on a solution.

**Speaker1:** [00:02:19.94] Great. So what's your advice for people investing in this space where you tell them to do before they write that check?

**Speaker2:** [00:02:26.03] The main thing is to be aware that this is a smart city space where we are colored right now in parking, but the real space is much, much bigger and it's very tightly connected. So the smart city information space is one that provides information about what happens in the street. And there is a growing large set of possible customers for this. And but they're usually the same users for mobility, making the city smarter, insurance, making marketing or commerce better. So all of that information is related and parking is one part of it. So when you invest in our company or other companies in the space, it's worthwhile to know this. Right.

**Speaker1:** [00:03:13.07] So let's talk about the state of investing in this sector. How do you see the industry evolving? You talked about it growing, but can you get more detail on it?

**Speaker2:** [00:03:20.66] Yeah. So I see, you know, everybody timing the market is always a challenge. Right. And from where I stand and of course I'm biased, but I see the market accelerating for investors in the US, it's a little bit harder to see. In Europe, it's very pronounced the European Union has increased more than 10 percent year over year. It's investment and it's more than one hundred billion euros a year in smart cities, which it gives to cities to improve their smart city infrastructure. In the US there is with the new administration and also the previous administration. There were different forces along that. But you see a difference. You see a difference between us, Europe, Asia. But as a whole, the smart city market is, in my opinion, right before the inflection point. So it's already you can see a lot of companies, telecoms, oil companies, car companies. Of course, it's all connected with the lot trend, the information trend. It's coming together and it's happening right now. There are different researches that say this to this smart city market is growing at least twenty five percent year over year. And there is depending on how you measure the market, it's somewhere between already between half a trillion dollars and one point five trillion dollars. It's going to be between

eight hundred sorry, eight hundred billion dollars and two trillion in twenty twenty five. That's the projection. And so these. Grasp, they really show the magnitude and, of course, the opportunity that we're looking at green.

**Speaker1:** [00:05:14.72] And so how many companies are engaged in this sector for smart cities?

**Speaker2:** [00:05:19.45] So quite a few. I would say this this today, not including the two person kind of startups, let's say hundreds. So different, definitely the telecoms, definitely this large into Internet companies, mapping companies, automotive companies, anybody involved in mobility, including trains, railways, airplanes, airlines, they all are related to that space. They need information from that space. There will be many more. And you see it already in the deal flow of startups in the in the area. Many of them are still struggling, finding the business model. That's the hardest part here, really, because cities don't move that fast. And really, personally, I don't think that they will be the largest buyer in the future. That will be one of the buyers. But you see that as the business models are evolving, some innovative ideas are coming together. And so I believe the number of companies will grow more than a thousand in the future.

**Speaker1:** [00:06:22.03] Wow. And so what are the challenges in this space? You talked about the cities maybe not being the buyer, but what else may be the challenge here?

**Speaker2:** [00:06:29.39] Right. So the challenge is that at least the old challenge was that the smart city idea was that cities would pay for sensors and they will install sensors in the cities. And they this way everybody will have information. Now, turns out that sensors are expensive, installing them is expensive, maintaining them is expensive, and therefore it's not scalable just like that. And also, it turns out the cities don't find it very appealing to install those and spend all that money. So the two problems together created a really a business problem of where how do we make money from this and how do we make it in a cost effective way so that people get their orli and are able to grow this so, so together. That's the biggest challenge that I see in the cities and approaches like ours. Of course I'm leading to it. But of course, approaches like ours are beginning to to to find a way forward.

**Speaker1:** [00:07:28.51] Tell us more about PARC NAV and how it fits in the landscape in and how do you solve that business model problem.

**Speaker2:** [00:07:34.48] So so PARC now provides information about street parking and it tells you in one street there is parking right now. In the other street there is no parking and it does it in a scalable way, reaching at least eighty five percent precision up to 90 and ninety five percent precision and more more recently. And the way that we do that is slightly different than before. Of course, we don't invest in infrastructure ourselves. We don't rely on infrastructure changes necessarily. We take data that is available off the shelf. We do also acquire data that belongs to us by driving in the cities and acquiring that data ourselves. So spending some money on this. But we do it in an efficient way so that at the end we are able to provide the solution the way we provide it. Today, we I think it's said in some place that it's a it's on our side two hundred bucks a month for any place in the world. So any square kilometer of your choice to own a box and you get it. And the ability to do that quickly. And the high precision from a I and a lot of lot data that is combined together, that ability is a breakthrough on the technology side. But of course, it creates also a breakthrough on the business side because now anybody can buy it.

**Speaker2:** [00:08:57.10] It's like it's something that any anybody if I go I have we have some requests from, for example, people in the hospital in Houston they were asking for, hey, you know, I'm coming to work every day and, you know, visitors can park in the parking garage. But for me, it's not economic. The park in the parking garage every day. And I'm using your app in downtown Houston, but it's not near my hospital. Can I use it? And for that, you know, anybody can buy it for two hundred bucks a month for the employees of the hospital, for example. So that ability to to do this in an efficient way, economical way is is the way that we approach it. And it's, of course, not just parking spaces. You know, if you think about us in the vertical of Smart City, there are the sensor providers, the the communication providers. We're at the analytical the analytics layer. On top of that, we take the information. We combine it with information from satellites, from cars, from phones, from other sources. And we then provide a solution that is making an. Impact and gives you an hour why that that makes sense. So we look at this, that's why we look at this is beyond parking. It's not just parking.

**Speaker1:** [00:10:15.65] And so you're a data plate now. What is the future for you? Are you going into I or other avenues?

**Speaker2:** [00:10:21.59] So we see. So I'm an AI professor, so I. I brought into the company. Of course, in my mind I cannot be just the software. It comes together with data. And so you have to solve the problem together and provide a solution that's not just. Here is a piece of machine learning you bring to data and you press the button and something works. So in this space I see bringing the useful data and partial solution, partial product that you can plug into your your smart machine that I think is the real A.I. And so we are building, if you think about it, we're building a machine that understands what happens in the street. And so in the future, when autonomous cars, they, of course, need to find parking, they will use our service to find parking, but also they will be able to use our service to understand what happens in the street. What are the things that happened there?

**Speaker1:** [00:11:23.36] That's great. Well, in the last few minutes that we have here, what else should we cover that we haven't?

**Speaker2:** [00:11:27.05] I think that we we can talk a little bit, of course, about the different applications of the technology. The applications are the beyond parking. We look at opportunities that are around security, safety, logistics and supply chain. Cities are changing. And so they need all of that help, but also how to find solutions for the small and medium businesses that are on the street. So I see the data that we have today as something that we can leverage to many business models and some of them we're working on right now.

**Speaker1:** [00:12:07.60] So how does it help the small and medium sized businesses say, I have two parking spaces in front of my butcher shop? Do you track who actually parks there and then tells me I've got a customer, not a customer there? How would it benefit me as a small business owner?

**Speaker2:** [00:12:21.44] Also, in the one hand, I mean, think about us more. If you look at us a little bit as a real time information about what happens in the street, then we become a way for you to know how to market your store better. And to whom? To the people that pass in the street. You can you can make that marketing sensitive to the real time information that happens of what happens in the street. So depends on who passes and what passes you. You can then use the information, of course, in different platforms, ours and others. So that's one side. The

flip side is, of course, being able to use the information to make decisions about where you will invest, where will you open your shop and so forth.

**Speaker1:** [00:13:13.61] So are there any privacy issues with capturing that kind of data or do you think that might be an issue in the future or you don't think that's going to be an issue at all?

**Speaker2:** [00:13:21.50] That's a great question. So we're very active in Europe where GDP is, of course, dominant. What we do is we make sure or strive to have no identifying information even in the data that we receive. So it's all very statistical, very, very much without an ability to reverse engineer who was where in those cases. Sometimes we are processor for the owner of the data. And in that case, we keep a very strict control over the information while it passes through us. And and we ourselves obfuscate the names or or any identifying information for devices or whatnot, because we don't need it. We it doesn't give us any any benefit. So we really are seeing the products that we provide as things that are social benefit without having true. Any any intrusion on people's privacy.

**Speaker1:** [00:14:24.05] Great. And you talked about cities not being the primary customers, but it seemed like they would really want to know how those parking spaces are being utilized, how many more they need, how they can make them more efficient. Do you see them being a customer at all at this point?

**Speaker2:** [00:14:37.61] Absolutely. I mean, so government in the entire like all of the levels of government cities, counties, states and federal, they all are potential customers for this information. And in fact, we do have a product for them that we launched very recently. And we have the initial customers of it's called our city portal, which provides the city not just information, dynamic information about what happens, but also the ability to analyze that information, see trends over time and see and make planning and operational decisions easier. So we do see the cities moving in that direction, the place where, of course, we would need to see and the how fast those cities customers will grow that that remains to be seen. There is uncertainty there. So far they've been buying slowly, but just like many. If you look at telecoms in the early 2000s, the. They were like the the monoliths that nobody would invest in that

direction, I think that cities are going to change the way that they buy and we are pushing SAS software as a service solutions. Exactly to enable that.

**Speaker1:** [00:15:55.22] Ok, I see how this could be a great tool for autonomous vehicles. How fast do you see that happening in American cities?

**Speaker2:** [00:16:01.01] So autonomous vehicles are, of course, fantastic, a fantastic future. As far as the technology in general, I personally believe we still have some way to go. Of course, there are steps along the way of autonomous vehicles, but the vision of a car like India or some old fashioned movies where the car just drives by itself and does all the shopping for me, that is a little bit, you know, I would guess easily 10 years away, if not more cars need to understand the street, you know, otherwise I know I won't understand the meaning of a ball stuck under a car, a parked car. I won't understand that. It means that there's a chance that there's a child that I don't see hiding behind that car. So unless the car is able to understand the surroundings, it will remain very dangerous to us.

**Speaker1:** [00:16:58.16] Do you see the solution applying to scooters and non car vehicles that might also be in the urban area?

**Speaker2:** [00:17:05.15] Yes, actually, we do see we do see a number of solutions that are specialized for scooters and shared mobility, different kinds. They also need to stop and put the the park scooter, the park, their scooter somewhere and a legal spot and different cities have different regulations for that. Same goes for the different kick scooters that are sometimes, you know, they they aggregate in some places and really litter the curb. And so the cities are going to change the regulations to make a living and using those tools better. And they would need information that the users would need information, the cities would need information. So we're there to serve that need.

**Speaker1:** [00:17:56.51] You think they could actually issue fines if I'm not handicapped, but I park in a handicapped spot? Do you think they could just send me a bill because I actually did that? Or do you have to go out and see a car actually parked in the handicapped spot where it shouldn't be and then put a ticket on it? Your receipt is being used for regulatory enforcement

**Speaker2:** [00:18:13.91] From a technology perspective. Yes. From you know, otherwise. There are, of course, political decisions that are hard for me to predict. But from a technology perspective, it's absolutely they're also from a business perspective, it's almost there.

**Speaker1:** [00:18:32.06] Interesting. We're talking another groups about block chain and audit trails and smart contracts. And it seemed like that. Plus, this could be a very useful solution for enforcing the very, very simple things where we really don't need to be spending people's time on it. It just needs to be automated. And it seemed like this direction is going. So how best for listeners to get back in touch with you?

**Speaker2:** [00:18:53.30] I'm happy to get everybody's emails into my personal email. It's e y l at park nav dot com. And please put in the subject that you reach out because you saw you heard me in this podcast. As you can imagine, the startup CEO gets a lot of emails this way. It will stand out if you pointed it out that you found it in this podcast. Thanks.

**Speaker1:** [00:19:23.84] Great. I want to thank you for joining us today and hope to have you back for a follow up soon.

**Speaker2:** [00:19:27.98] Beautiful. Thank you all for having me here and appreciate the time and pleasure to speak with you today.

**Speaker1:** [00:19:35.72] Investor Connect helps investors interested in startup funding. In this podcast series Experience, investors share their experience and advice. You can learn more at Investor Connect, Doug. Paul Martin is the director of investor Canek, which is a five Wannsee three non-profit dedicated to the education of investors for early stage funding. All opinions expressed by Hall and podcast guests are solely their own opinions and do not reflect the opinion of Investor Connect. This podcast is for informational purposes only and should not be relied upon as a basis for investment decisions.