Space Midrash with Roy Naor from Creation Space

**Jacob Sager:** [00:00:00] This is Space Midrash. I'm Jacob Sager. I believe in a future where humanity thrives, artfully, ethically in the cosmos, but we don't become those people just by building rockets. We become them by telling the story of how we become them. Space isn't just a destination, it's a mirror. It reflects our values, our systems, our gaps, our myths.

 And if we're not careful, we'll export everything broken about Earth to the stars. That's why this show exists to ask better questions, to trace the connections between ancient and futures. Sometimes through Jewish lenses, sometimes through engineering ones, always through the people [00:01:00] trying to build what comes next.

This isn't science fiction. This is mid rush, and the future is being written one story at a time.

This is Space Midrash, and I'm Jacob Sager. Sometimes I talk to someone on the show and realize. This isn't just a good conversation. It's a working diagram, a living example of the future. We say we want actually being built with rigor and clarity.

That's what this episode is. I. Dr. Roy Naor is a planetary geologist By training a founder by just who he is and a systems builder, by necessity, what he's doing with creation space and meet spay Ramon isn't just impressive. It's really instructive. It's a serious model of how deep tech innovation, regional development, and space infrastructure can actually align.

Not in theory, not in pitch decks, in [00:02:00] motion. Roy is not leading with charisma. He's leading with coherence, the kind that comes from holding academic, governmental and entrepreneurial languages altogether at once, and not defaulting to jargon in any of 'em. He's clear, he's grounded, and that makes his vision not just believable, but contagious.

What stood out to me most is much of his work embodies the kind of Zionism that I believe in. One that's not just a mythos or a branding. It's one that builds literally at the edge of the known world. Startup nation, taken seriously, taken to the extreme, taken to the desert, taken to the moon, taken to Mars.

It's more than just our national story, the story of our people. It's a system story. It's a planetary story. It's a story of how the future is created right now. Roy's model asks a simple question, how do we build tools and ecosystems that are useful on earth and essential in space?

And how do we do it in places like Mitzpeh Ramon Places [00:03:00] is already shaped by constraints, resilience, and the drive to make something work where nothing should. It's not science fiction, it's infrastructure, it's what space needs and frankly, what Earth does too, let's get into it, is a space mid rush.

We're schmoozing with Dr. Roy Naor of Creation Space.

Awesome. I'm Jacob Sager and I'm here today with Dr. Roy Naor from Creation Space. Where are you, Roy?

**Dr. Roy Naor:** Currently I'm in Hertzeliya in one of our two main offices. We have our office in Hertzeliya and office in Mitzpeh Ramon

**Jacob Sager:** Yes. tell us about your educational background and what you study.

**Dr. Roy Naor:** Sure. So my bachelor is from the University of the Negative studying geology, majoring geology. But then I went for graduate study at the Mann Institute of [00:04:00] Science focusing on planetary senses.

So you can think of me as a planetary geologist. My research that was partly been done at the NASA Ames Research Center in Silicon Valley was focused on Mars geology. Basically addressing the questions of how the climate on Mars transformed from, very.

Hot and humid to cold and dry, as if it is as it is today, focusing specifically on caves forming on Mars because those caves can be the indicators for the climate change. So that's my academic hat. So I'm a PhD from Whitesman and nasa. But I think, my academic head is good for saying I'm part of, I'm.

Coming with the best scientific background for space because you're

**Jacob Sager:** really, you're more a connector and a business person and a innovator.

**Dr. Roy Naor:** I always saw myself as a true entrepreneur, everything in my [00:05:00] life, now it's with startups and high tech, but with the spirit of entrepreneurshipduring my master's and later on, my PhD, I was the originator and initiator of the Space Simulation Center that is located in the center of Ramon Crater Ramon.

Yeah, Machtesh Ramon, which is in the central negative, this is a place where international teams coming from basically all over the world to simulate missions on Mars. And they do it inside this, it's a mock habitat, so it simulates a habitat that was built on Mars and those teams of scientists and engineers and.

Maybe some, those that practice for becoming an astronauts, they can have their experiments and simulations to have proof of concepts of their development of technologies relevant for future off earth missions. So that was an NGO. [00:06:00] Studied it I think 2016 it was already. Operational by the end of 2017.

**Jacob Sager:** were there simulated space missions both produced by locally within Israel and also internationally within Machtesh Ramon prior to 2016,

**Dr. Roy Naor:** Not that

**Jacob Sager:** Okay.

**Dr. Roy Naor:** It actually stood with me, me being selected for a simulation in the Utah desert, Utah in the United States.

I was sent by the Israeli Space Agency as the crew geologist of the mission. I was the only Israeli, like it was scientist and engineers from all over the world simulating. Two weeks living in this simulation in the Utah desert and basically having a proof of concept of how you can 3D print houses from the desert soil in Utah.

Relevant, of course. That's so cool. On Mars. So it was 2017, it was like in the early days of 3D printing for building houses. And continuing [00:07:00] on this wave, I brought it to Israel. Persuaded people and government and stakeholders to. To help me build this thing.

So with other co-founders we established this, the simulation center, it was called DMars. It's still active. So it's an NGO and some of the founders of DMars. Realized that there is a business case here. 'cause companies coming to us asking to expand their opportunities for rising deep space markets.

And with that we, in 2023, we decided to go for for profit. Path and we established Creation Space, which we will soon probably speak about. Only to say that's a commercial company. And we secured our first round of investment just a week after the war started in Israel.

From US based family office, Braverman Family.

**Jacob Sager:** Let me ask you a bit about Machtesh Ramon, [00:08:00] which the word that we use in English when we describe this is crater. And I think in English, the word crater is appropriate, but people think asteroid impact when they think crater. Whereas Machtesh Ramon and you're the geology PhD.

But from what I understand, millions of years of fluvial activity of water, of river and water activity that must was likely underground. Pulled out all the sediment and there's just this gigantic drop in elevation.

And you have you have machtesh ramon. Machtesh means the word crater. And you have Mitzpeh Ramon, which is the town that's up at the top. Which is just a really interesting geography. And if I remember right, if you were coming from somewhere like Hertz or more Central Israel, you'd you'd take the bus into into Be'er Sheva, and then you'd probably take the bus to Dimona and then, I don't know, you get off before Dimona or after Dimona.

It's out there. It's it, when people say the word nev in desert, that's what you're talking about. And so I wanna ask you as a geologist. you set up the NGO, you're doing the missions out there. It's [00:09:00] a really ancient landscape. what can we learn from that landscape about Mars and why is that like one of the best places in the world to simulate Mars missions?

**Dr. Roy Naor:** Great question. I can elaborate, so I don't want to, 'cause, because, I don't want to speak too scientifically, but basically to say Machtesh Ramon or Ramon Crater, it's an erosion crater, meaning erosion. It was formed not by impact, it was formed by erosion. You more or less explain that.

you made a good explanation. And the point is that we see erosion craters also on Mars. So we know the impact craters, those very round depressions. But we also see many irregular depressions that clearly did not form by impact. They form by some other mechanism.

Maybe tectonism, maybe volcanism, and maybe erosion. Okay, like sinkholes for example it's, you can think of it as an erosion [00:10:00] 'cause it collapsed. And actually the largest Canyon in the solar system is on Mars and it is called the Vallus Marineris. Okay. It is as wide as the United States.

**Jacob Sager:** Oh wow.

**Dr. Roy Naor:** As long as the United States. There, there is no one single consensus of how it was formed and scientists still study it.. Okay. And not arguing that Machtesh Ramon and Vallus Marinarus formed the same way. Not at all. But they do argue that you can try and constrain the formation of Vallus Marinarus by studying analogies to the formation of Machtesh Ramon.

Okay, Machtesh Ramon, I see these type of features that can teach me this and that, and on, on Val Smart nerve, maybe I see some similarities. Now, Esh Ramon, I can get there and, break a rock. I can drill a hole and what I understand there, I can try to test for where I [00:11:00] cannot break a rock and cannot drill.

Ramon is an interesting analog specifically for irregular depressions on Mars that we don't know how they formed, but the analogy is, by the way much deeper than that. I just give you an example, something like, it's not the morphology of the Machtesh that is analogous. It can also be the mineralology at the heart of Machtesh Ramon, there's a rock formation made of gypsum.

Okay, gypsum, like sulfates. We find sulfates on Mars and we try to study those sulfates and where, what mechanisms form these sulfates. Again, I'm not arguing that the sulfates in Machtesh Ramon. Formed in the same mechanism, but again, it's in an environment that you can study in order to extrapolate, to constrain the environment on Mars.

And I can give other examples. So it's not like Machtesh Ramon is the perfect analog for Mars. What I'm arguing is that there are analogies, very interesting analogies, sometimes unique analogies. In Machtesh Ramone that [00:12:00] you can extrapolate to Mars if you wanna study, like different temp, the temperature on Mars, or to simulate the temperature on Mars, you should go to Antarctica, not tote Ramone.

And maybe just one more point. When we thought of Machtesh Ramon as the perfect place to have our simulations and later on to establish creation space in the, its operation in Machtesh Ramon and specifically the town of Mitzpeh Ramon is because of the analogies more than just the geology..

You can think of that it is the most peripheral. Town in Israel, there is no settlement in Israel that is more, more remote from any other settlement. It stand alone on a mountain. Even Eilat, which is farther away from the center of Israel is less of grid. It has, a naval, it has an airport, it has many settlements very nearby.

Okay so it's like the most off-grid town in Israel. And for that reason, that's the, [00:13:00] and I'm speaking about the town, not about the machtesh, although they come together, it is the perfect place to develop and test technologies relevant for living off earth of. Of grid, but basically off Earth is also off grid.

And if that's not enough Mitzpeh Ramon is currently the Space City of Israel, even without us trying to promote this vision. 'cause Per Capite has the largest amount of space related institutes. It has the largest space observatory in Israel and actually In the whole neighborhood. It's an academic observatory.

And it has the Ilan Ramon Visitor Center that commemorate the Columbia disaster and educate Israeli youth And it has lots of space related institutes, but you can get to my logic that in the end, if the European Space Agency develops a rover to drive on the modern Mars, they will just, plan it digitally and then start [00:14:00] to assemble.

To manufacture the part and they will assemble the robot and then we'll start driving it to test it. So they have their own sandbox and they will start driving it in a sandbox in the Netherlands, for example. But in the end, they need to test it, they want it to drive for days, for weeks, for months.

And you cannot do it in a sandbox. And if you go outside, trees, vegetations everywhere. So they go sometimes to places like Morocco. Morocco is hard for them. It's not so accessible. The desert is not so accessible. The country is tough for them,

You land in Ben Gurion Airport two hours later, you're in the middle of nowhere. You're in the heart of the Machtesh. You see no settlement. There is nothing there. Hyper arid environment, ready for testing.

**Jacob Sager:** It's really interesting to think about, the town is Mitzpe Ramon, to think of that as being this densely [00:15:00] populated per capita of space businesses.

For anyone who's visited Tel Aviv, it's a very dense place to begin with and you just, you stroll your eyes about, and you can see all the commerce and all the academics and all of that happening

But what's also I think, fascinating is, we're like, it's 15 plus years since the book Startup Nation came out, which was already talking about generations of the Israeli startup economy and how actually Thinking about when it came out, it probably came out around the time the first iPhone came out, and it's just talking about how Israel was very much poised for that moment because the culture really supports entrepreneurship.

You talk about being an entrepreneur from a young age. I'm curious, over the course of your career and especially watching how, and being part of how Mitzpe Ramon is becoming this economic center of space. What's changed in the startup economy in the last 10, 15 years that, that is really pushing and supporting things in the peripheral?

It's, it, beyond the actual value of the [00:16:00] technologies you're producing, it sounds like there's a lot of minds that get that this is the model, this is the kind of thing to support, and this is where the energy's going.

**Dr. Roy Naor:** First of all, you are referring to it as if it is like already happening and happened for several time.

While for me I'm, I see myself as the executor, but I'm executing a vision. It's a vision. Currently in Mitzpe Ramon, there is no commercial activity about space other than us. Okay. What we are trying to do, and I think that's the point here. We are trying to make it a hub.

We are trying to make it an ecosystem. A place where entrepreneurs who like to enter. The space sector and more specifically to capture the rising opportunity in deep space. we are trying to promote their will to come and operate from Mitzpe Ramon because. that will be the best [00:17:00] place for them to develop their technologies because there will be enough critical mass.

Not just because they have the testing bed. They have experts and they have academia relevant for their studies and they have resources and maybe at the beginning subsidy from the government. In the end, they need things that operate together, which I refer to as ecosystem.

To have good reasoning that this is just a place where they want to do that. That's where things are happening. But maybe I should have start, depends who's your listeners, but for Americans it's easier to understand, but Israelis, they're not part of the, for Israelis space is all about satellites.

We are really good at satellites. We build satellites for surveillance for Iran. We do what the market needs or what, other needs are. But Israelis usually, they don't think of themself as part of, this big [00:18:00] venture of expanding humanity beyond earth.

That's not us. That's the Americans. They know they had all their Apollo thing and they're really good with that. We didn't do the astronaut thing and I think this is wrong 'cause Jacob you probably, 'cause as an American you are aware of the news of, what's the current statues with space.

Israelis do not, I need to tell them first of all that the space race is back on the menu, and superpowers compete once again for dominancy on the lunar surface this time, right?

**Jacob Sager:** Yeah. We're going back to the moon if you didn't hear.

**Dr. Roy Naor:** It being happening that China and America and other countries compete for the lunar surface. But it is also, as you well aware, it is not just about that this time with, I mean there were the Apollo ages with, it was really only between superpowers. This time it is also between commercial players, the richest people on earth: elon Musk, Jeff Bezos, they [00:19:00] compete in space and more specifically in deep space because they see a commercial opportunity in operating on the moon, on Mars, asteroids and in interplanetary medium. So that makes the game much, much more interesting and the technologies needed in order to capture this rising opportunity are not satellites.

By the way, it's not even launching. Jeff Bezos and Musk they're doing it, but when you get to the lunar cells, it's a launch companies.

**Jacob Sager:** I was, there's a lot of launch companies. Talk about the exactly. But after launch, the economic of it here in the states there's actually too many launch startups in the United States and

**Dr. Roy Naor:** launching is only part of the game if you try to be, to form economy. If it's all about making profit out of this endeavor. Okay, so it's more than just the launching. You need to, in the end, have some operation that bring profit and on the [00:20:00] lunar surface and beyond. There are several ways to make profit. I can elaborate of course, but my main point is that the technologies needed in order to have a base in the lunar economy are from the type that Israelis are actually quite good at. These are deep tech, okay. Deep tech technologies of hardware technologies of agritech and health tech and robotics and infrastructure. Things that we are quite good at. Okay. And it's a thing 'cause when I speak to Israelis, I mean like a person who develops a technology to grow cherry tomatoes in the valley.

They see no relations between what they do in space. They don't know that currently there's a NASA grant to fund R & D for commercial companies to develop technologies to grow food in extreme environments. So that's what Creation Space is here to do. We are here to [00:21:00] capture the rising opportunity in deep space for Israel

**Jacob Sager:** for it seems that there's a lot of.

a lot of people, as you brought up nasa, ESA and, talking about SpaceX, where sometimes these government entities are working with major contractors all the time, but those major contractors are working with, a lot of startups are working with a lot of smaller players who have.

High level expertise in very specific realms of technology. We, I previously had Yiffat from WeSpace on, and they're doing the lunar hopper, which is entirely enabled by the goals of Artemis. But by, NASA's directive is not they don't have an imagination of how are we gonna move about the moon?

They don't even have their own imagination of, once we can move about the moon. How are we gonna make money? But they come back with let's hop around the moon and it's actually about creating maps and selling data of real information. 'cause that's what, that's the first market there. So there's something interesting where in the [00:22:00] startup nation where you guys find those places or what seems to be interesting that you're talking about is talking to people in real situations.

Where there's the value cross crosses over. And I know that there's a lot of that in the Negev because of the extreme environment, but I think a lot in Israel because in Israel you guys are a global player and wanna be part of the world, but also take being responsible for what you're providing yourselves very seriously.

I'm curious, if you could tell us a bit about what kind of technologies tell us about Creation Space as a, as an incubator, as an investor, as a partner, and a networking. Like what are you doing and what technologies are showing up that you've seen since starting in 2023.

**Dr. Roy Naor:** Sure. First of all, just to make it clear, Creation Space is a company, it's not a fund company. Okay? It's a company. It is registered in Israel and it has shareholders. We see ourself as an innovation hub, We incubate companies, startups we accelerate them, but we [00:23:00] actually also create them. The name creation space comes from the Venture Creation Studio. the founders of creation space are the founders of startups This is what we do. We tackle deep problems in space missions. and we come up with solutions or come up with entrepreneurs that can form joint ventures with us 'cause they have solutions. And it's not just about tackling the deep space problems. We search for dual value applications. That mean we only developed technologies or for form companies that can address a problem that is both for earth and for space. Meaning that it can, it has the potential to capture the opportunity, the rising opportunity beyond earth.

Okay. The historical opportunity that's currently on the table, but only if it also can present high potential, strong potential for faster return on investment from the terrestrial application. Okay. [00:24:00] That's important to note. We won't work with a company or we will not establish a company ourselves if it doesn't have a clear market on earth. Basically to bring fortune and make it less speculative. So just to give you a few examples, I agree, we really focus on those technologies relevant, for Israeli needs, or you can call it Israeli needs, but I think it's the climate changes all over the world and technologies are needed all over the world.

And Israel is light to the nations. We develop irrigation systems for our needs in the desert. But then the whole world just enjoy these developments. And that's I think what Zionism, by the way, is all about. We as creation space, and we as Israel are the right candidates to become strategic partners, to tackle those challenges in deep space for all the commercial players.

It's because Zionism is much about thriving in extreme [00:25:00] environments. It's about innovating where it is hard, where it is tough. If you like, if I understand you correctly, want me to provide a few examples of startups that we incubate, accelerate, or develop. So I'll give you a few examples.

For example a company that Came to our first cohort in Mitzpeh Ramon The name is Oasics. And they presented themself as a company that basically developed thermal batteries To conserve heat, energy and cold for AC systems, for heat pumps. But in our cohort, we basically gave them the knowledge, provided the opportunity to realize that they can capture or tackle specific problem in deep space. And by that, of course, to win NASA grants and other funding opportunities that before that were not relevant for them. Now it's clearly a climate it's a climate take company.

[00:26:00] Relevant for energy. But then they realized that there's a hype now about building lunar data centers. Big corporates like Nvidia Amazon, Microsoft, they are now planning to be dominant in a decade in the rising market of data centers beyond Earth.

There's a good reason to do that. There's lots of fortune waiting there. And it's all about how to tackle the challenges in the establishment of these data centers on the moon. Now, these data centers currently clearly provide, produce lots of thermal energy and then realizing for Asics that they can address this problem and offer a solution relevant for those big corporates that currently fund the research and development for data centers on the moon.

They became a dual value company that, that currently see themselves and communicate themselves as company that can [00:27:00] provide value for terrestrial markets and of earth markets. Now in Israel, every year there is an annual conference about space. The name is the Ilan Ramon International Conference, and every year there's a pitch event of all space startups in Israel that try to pitch to win the contents as the best promising startup in space sector in Israel.

And, 22 startups, there were the typical space startups. I don't know if they hold 22, but the majority were About satellites. Only five got To be on the stage. Okay. And only one, yeah, one won the contest and then that was Oasics. Few months before that, they knew nothing about space, and then they stood on the stage giving their pitch.

And, the crowd selected them to be the most promising space startup of the year. And they do thermal batteries. And none other [00:28:00] than the former NASA administrator, Charlie Baldin, announced their win.

They are one of our portfolio companies. So from being, climate tech, company energy to offer value for establishing lunar data centers- that's big. and we help them secure funding and now they are operational and continue to develop their technology.

**Jacob Sager:** are you're planning on launching a global contest?

**Dr. Roy Naor:** That's a very good question. So I talked about our cohorts, just to make it clear, we have like an innovation program or acceleration program based in, Mitzpeh Ramon for existing startups, Israeli startups that come to our program and receive funding. We via our backing family office In America named Creations vc, they are named after us.

They invest in the startups that we accelerate in the program. Each startup receive quarter of a million US dollars, and they need to use the [00:29:00] funding in order to bring more funding from, for example, NASA grants or Israel Innovation Authority grants. So that's a program and that's for the Israeli startups.

But as you asked me we do more than that. We are currently having let's say a competition, and it's a global one, and it is specifically, to tackle problems needed to be solved for establishing lunar data centers on the moon, again, it's a thing, just Google that. It enjoys different physical properties that make it just much more profitable to have it on the moon, but it doesn't need to be on the surface.

The surface is hostile radiation. Meteor impact big range of temperatures. You want it to be underground. Also on earth, you want it to be underground. So we in this competition are basically scouting for technologies from all over the world that can offer ways to automate the tunnel boring machines that form those big tunnels on earth that can be used [00:30:00] for meteor systems, but on the moon, that can, be the tunnels needed to establish the data centers protected in the subsurface. So it's a dual value competition. Okay. 'cause startups need to offer their technologies for boring for, it can be an algorithm, it can be technology to actually bore, it can be a technology to evacuate the material.

And the winner will receive 50,000 US dollars. and glory and fame. And we'll probably choose to work with the best in this deal flow, but maybe just to, it's a good example to show you also how we do our studio, how we realize that's a big thing to, to have technologies.

For tunnel boring machines beyond earth and also on earth to, to automate them. And for that reason in our studio, we decided to build such a company. So we are building a company and in which we are the founders. Okay? We are the founders. We have an external entrepreneur who's. In a joint venture [00:31:00] building the companies with us.

And it is also in order to try to address this problem. So again, it's just to explain how creation space work, everything from acceleration programs to founding companies in-house. In Sperone, we are building a physical ecosystem to support this venture building because it's really hard to enter the space sector.

NASA has all the testing facilities and if we want commercial company to be part of that, they need commercial testing sites and the laboratories and other resources in mi per month building the facilities needed in order for those startups in the acceleration program and in-house venture creation to thrive.

Yeah, no, you did. My question also was multifaceted and wasn't a one dimensional question, nor is any part of this interview and been. I'm curious the question that actually popped in my mind while you were [00:32:00] describing specifically the boring of tunnels on the moon, is that in most of the different technologies being made for going to the moon, not just with boring, but some of the other solutions or problems being solved, do all of these teams need a geologist on hand?

**Jacob Sager:** It's, it just. I'm not a, I'm not a machinist, I'm not a, I'm not a moon technology person, but it just hits me now that no matter the problem, 'cause we're dealing with such a foreign and hostile rocky environment. I don't know, it's, are geologists very important on space teams? Is my question?

**Dr. Roy Naor:** what is the moon? A big old rack. It's a rock, right? It's a rock in the sky. So who deals with rocks? Yeah. Geologists. But actually I, I do not argue that every, all teams need a geologist. Not at all. I'm speaking here about food tech, for example, to feed the astronauts, and I'm speaking about health tech to bring [00:33:00] medicine and robotics and yeah, it's important to understand the physics of the moon and the geology of the moon, but.

I am in creation space. I'm a co-founder and the CEO. The whole team, we are a team of space experts, scientists, engineers, also people coming from background of investment and venture building. We are like an envelope for the startup. Envelope of experts that basically here to make the startup much, much more successful.

Then it could be, and to basically bring the value of entry to the space market and the network and just making aware of all the opportunities and capturing them. And of course when a startup coming with relevancy to geology, I, come with my hands to get dirty on the science part of it.

As a CEO of a startup studio everyone's talking about AI now that things like ChatGPT are making AI very accessible to any kind of role or [00:34:00] situation. But you're talking about technology solutions where a high level of expertise is potentially necessary, whether from experience or fromacademia.

**Jacob Sager:** I'm curious with these interesting solutions and various technologies being invented, how are companies in these realms using ai? Is it just for data? Is it people on teams using AI assistants to help them do better work. Is it, built into the products?

**Dr. Roy Naor:** Clearly it is. And I want to give you an answer that is relevant specifically to what we do. 'Cause you could ask this question any, any CEO almost in any organization. So I give you the answer via the needs on the moon. Let's get back to the tunnel boring machine. Okay?

It's in the subsurface and it's on the moon. There is no GPS yet. You gave it an order to, to bo a tunnel and with specifically, go there, get there, navigate, do everything you need in the subsurface, and it [00:35:00] needs to know all the time. Where it is located without GPS when to turn. okay, it drilled, but the rock was harder than expected.

How does it know how much it progressed, how much it, when it knows if to turn right or left? Clearly it, it's all about developing AI capabilities also for Earth. Currently, it's a very low tech industry and you need workers to do all this hard work. So if it'll be automated for Earth. That's a big win.

You become a billionaire just from that, not speaking even about data centers on the moment. I don't know if I answered your question, but clearly the answer is yes, we are living in the age of AI and I talked about deep tech, but it's also about algorithm, about ai. That's, that's the technology needed.

**Jacob Sager:** when we talk about deep tech too, I'm always curious about how you have the technology readiness level of things that need to be space ready, but you also have, I guess [00:36:00] especially with the Earth applications, you have thisI'm thinking Startup Nation, just like innovators this model didn't work, i'm going back to the metal shop. Let's redo it. And, here we go, this works and we're gonna, we're gonna just keep this tool as is. It doesn't need to be fancy. I'm just like I'm curious where the contrast in that there's like almost a big divide between the technology readiness level of things that need to be on the moon versus things that are on the earth.

And how when you can prove it on the earth and prove maybe a space application in the future, how can you justify to investors or things like that when you're not at that space level yet, it's gonna be there,

**Dr. Roy Naor:** I think that my last example is actually a very good example.

It's an algorithm, okay? And it will, if it's an algorithm about how to operate in the subsurface without GPS, that's, a product you can sell for the Moon and the Earth. And it doesn't matter. It is agnostic to the environment. So that term, that's a hundred percent dual value.

If you want other examples, which are less, [00:37:00] so if it's, the technology is about the driller itself, the environment of the moon might differ from the environment of earth, but just to some extent.

Okay? So you develop a laser beam and it's just different. Some, to some extent, the different properties will be used for earth and the moon. if you want to be like very non-dual value, then maybe something that is, relevant only for the moon, like operating in a vacuum, for example, and not relevant for Earth.

You don't need technologies to operate in vacuum on Earth 'cause you are not there. But if it's not dual enough, it won't work. 'cause clearly what we sell is pivoting is to do two different things and no startup want to do two different things. You want to be very focused.

Here it's more about expanding the opportunity for get funding. To what you develop. Okay? If you can have funding from a NASA grant to develop your technology and then [00:38:00] shorten your time to market on earth. That's great. I want you to get to the moon as well, but if you don't, and it still helped you to be faster than others, then you win.

You win just because you were aware of the opportunity, of the problem that you can tackle in space and it helped you to make fortune if your own Earth. So that's also important. Although the vision of Creation Space is to capture the opportunity in space for sure.

**Jacob Sager:** We were talking about Mitzpeh Ramon and talking about that, just what's currently the environment there- let's talk about your partners there with Israeli Growth Authority and others.

**Dr. Roy Naor:** we have great partners who share our vision, and one of them is the mid paramount municipality who are really into making mid experiment true ecosystem for high tech.

For dual value startups with us. Also the JNF Jewish National Fund, USA, who from the beginning were our [00:39:00] supporters. We are the first actually to rent office in their innovation hub, new innovation hub in experiment. Also the Mirage Foundation, which is a family from the United States who are philanthropists for the negative.

Growth. And together we are also partnered with the Growth Authority under the Ministry of Economics, who help us develop our business plan to make this dream come true. And there are, other partners for example law office o Hof Law Office, who's the attorney for the space ail Beit spacecraft and Miar Patents and also the Desert Tech Climate Innovation Center.

And eight, 200 architects. most important one I think is the Creations VC, who started as a family office and now is a VC named after us It helps us sponsor to operate our activity. They [00:40:00] are shareholders in creation space, but also invest in the startups that we accelerate.

So they are the money behind all these, new and great and actually one of the biggest opportunities for funding now in Israel, not just in the realm of space, but for the local space mafia in Israel, for sure. That's big. Suddenly to bring new money from resource that was not exist or not available for the space mafia before.

**Jacob Sager:** Oh, so it sounds like the space environment was already very positive there and you're coming in and you're bringing a lot of growth and trajectory, but that the investment and support in Mitzpeh Ramon as a startup ecosystem is bigger than the space industry.

And that focus, that's pretty awesome.

Yeah,

**Dr. Roy Naor:** I think everybody starts from understanding, realizing there's an historical opportunity. We couldn't. Do that 10 years ago and in 10 years from now, we would just miss the train. Everybody share this understanding and want to capture the [00:41:00] opportunity for Israel.

And by the way, I invite your listeners to think how they can be part of that too. Part if they are an investor to invest in our companies, by the way, we as a company are also currently in an investment round so they can be shareholders in creation space.

But basically everything we do there is pure Zionism and in the end should contribute to the global effort to expand humanity beyond Earth orbit. Not in order to expand humanity beyond Earth or with everything we do in space is for humanity. And humanity is here on Earth. You can think of the Apollo missions.

In the end the technologies developed for Apollo. Being used eventually in every house, microwave and freeze, dried food and diapers, and MRI. These are technologies that were either in invented or accelerated for Apollo and now in every house. So we also think of the space challenges as an accelerator for innovating.

For earth, [00:42:00] for helping humanity to thrive here on earth with the inspiration and acceleration coming from the space challenge.

**Jacob Sager:** I love that. I love how you say that's pure Zionism. I absolutely agree with that. Being there and seizing the, this historical moment and and just doing what you're the best at and figuring that out and working hard at it.

That's awesome. Wow, this was really exciting. I really appreciate all of this, Roy. We talked about a lot today. We talked about Mars, we talked about startups and the startup economy, and we talked about technology and how CEOs are using ai. I guess my final question for you, Roy, is if not, if when you go to space when that opportunity arrives and you get your ticket, what are you gonna bring with you?

**Dr. Roy Naor:** What will I bring from Earth? Yeah, from Earth. Interesting. I got many questions in the past, but not this specific one. I really into utilizing the subsurface. I think that living in the subsurface also [00:43:00] on earth is an important thing we should explore. But. On the moon and Mars, it's even more relevant.

Okay. So I think it will bring a flashlight.

**Jacob Sager:** Yeah.

**Dr. Roy Naor:** Beautiful. But what about you? when are

you coming to Israel That's an important question.

**Jacob Sager:** Hopefully soon, hopefully within the next year I'll be there. with my kids and my wife and we'll come down and we will, be in Mitzpeh Ramon, and when Night Falls we'll look up and see all the stars together. It'll be lovely.

**Dr. Roy Naor:** And within a decade when the lunar economy truly rises. Okay. And there are data centers being established on the moon. Will you join me when we go there to do that?

**Jacob Sager:** Absolutely. Absolutely. Awesome. Thank you so much Roy. This was a great conversation. I really appreciate your time and having this andWe'll do it again and check in a year or so.

**Dr. Roy Naor:** Yeah, sure. We love that.

**Jacob Sager:** This episode of Space Midrash was recorded right here on Planet Earth and produced by Brand New [00:44:00] Colors 2025.