Podcast Episode #65 – How to care about sustainability to get rid of plastic bottles (and still make a profit), with Moritz Waldstein of Mitte, Germany

RAW TRANSCRIPT OF INTERVIEW

Balint: Welcome to the show, Moritz.

Moritz: Hi. Thanks for being here.

Balint: I was on Reddit in the hardware startups group a couple of weeks ago where I came across a post by, you, guys. I'm passionate about sustainability and hardware stuff, hardware entrepreneurship so you are an ideal combination for me. I'm glad we can have this conversation now.

Moritz: Yeah, same here. Thanks for having us. And I also think that's kind of a… Well, not kind of, that's at the heart of what we do and what we as a company also care about so hardware and sustainability or developing products that matter to people and the planet.

Balint: Yeah. Can't wait to get into this topic. I got interviewed, to start with a story, I got interviewed last year by the host of The Leadership and Environment podcast Josh Spodek, who is a professor at the NYU in New York, and I took on a challenge on his podcast that I will with eat beef once a month for the next following three months. I made it. It was a challenge but it made me aware of our environment and the impact we have and especially connected to beef because of the high usage of water that we have. Crazy, actually, the numbers.

Moritz: Yeah, I think it's 15000 liters per kilogram of beef.

Balint: Exactly, exactly. I remember exactly this number as well. And connected to this, our environmental impact, he mentioned it on the podcast and we actually did discuss also another topic which is the plastic and plastic bottle usage which is another example for how we're trying to kill our planet and our plastic bottles have a decomposition time of around 450 years, talking about figures, which is a really high number. I think it's astounding. And not enough is being done in this area, not at all in my eyes since the plastic bottle consumption is just increasing. The EU is discussing it, has started discussing it, especially the plastic bags but also the plastic bottles. And I think your story connects with this story.

Moritz: Yes, for sure. Do you want me to go and introduce now?

Balint: Yeah, exactly. So what do you do at your company Mitte?

Moritz: Yeah. What we do is we provide healthy hydration to people. So what that means is we can without technology, I'm sure we can talk more about it, but we can basically purify any type of water and remove things that are not good for the body. We'll talk more about the technology a bit later. But that could be things like including mentioned plastics, including micro plastics for example but also hormones and things like that. But then after the water is clean and that everyone has always looked at that maybe not cleaning so well but they have looked at it, the market has looked at it, we actually add minerals to make it healthy to provide healthy hydration, to provide a product that's in essence quite similar to some of the bottled mineral water. So water is that you would normally find in plastic bottles most of the time and that are shipped around the world to each consumers and we are basically replacing those. And if we look at…Well, actually one more thing. We can go beyond what mineral waters can do because we can really personalize them and target the waters to different user groups so for example babies and I know you just had one, Balint so they have different dietary needs than someone doing a lot of sports and well, then nature is kind of restricted by you know what the source is giving. And so Evian for example or whatever water is basically providing but we can actually personalize it to the user's needs. And in essence, replace those bottles which are and that's also interesting. It's actually a fairly new invention. The first plastic bottle was invented in 1968, not too long ago, but we are I mean the world is on a crazy plastic consumption pattern at the moment but I mean we see regulations now kicking in. We see for example the EU. We also see certain cities kicking in, we see entire countries kicking in, regulation kicking in and people moving on this craziness because it's not very sustainable. It really is not sustainable what we are doing to our planet. So I believe that in the future, well 50 years ago we didn't have bottles, and I think in 50 years we won't have bottles anymore.

Balint: I hope so. How did you come up with the idea of finding out that there's a market for this? Before we get into the technical aspects of your product.

Moritz: There's kind of an easy answer to that which is if you look at what's out there and then we have more of a complex one but if you look at what's out there and you have all the machines that you would find the market, all the different technologies, active carbon filtration or membranes, reverse osmosis or whatever. All of them only look at "How can I take things out of the water? How can I make things cleaner?" And that's important. But this is not what the human body needs. So the human body actually needs minerals to function well so it's calcium, magnesium. There's some 21 essential minerals that the body needs to function. And somehow interestingly

enough products that are there only look always at that how can they get things out of the water but never looked at what the human, what the body really needs. So this is I think a massive market gap and the only way how it is covered at the moment is through those bottled water companies. So we saw a big gap there and then more technically how we kind of discovered it, I met Fabian, he was a CTO, now three years ago and he was working on an idea to make desalination plant technology, much smaller distillation technology. That was his idea to make that much smaller. And I met him and I found it very fascinating and I kind of added the business side to it and we realized that yeah, we can build something very interesting here together.

Balint: Ok. I think it's phenomenal the kind of path you follow in getting to the current stage where you have sufficient funding. I mean I've seen it on your website the announcement that you got this very nice seed round. I think many people can be jealous in a way, in a healthy way that this seed round is a pretty big one. So you can operate well I guess and you can really grow the company.

Moritz: Yeah. So we kind of yeah, we went from you know sitting in a fab lab in Berlin rubbing knees because we had one table, one-person table, it was cheaper than a two-person table as we were sharing that. We went from there and then we got some initial smaller investment from Berlin-based investor but then we were luckily able to pick up some more investment along the way and then we did a crowdfunding campaign, a Kickstarter campaign at the end of last year which we kind of did not…Well, also for financial reasons but mostly really to prove that there was demand for this and also to show to the world but also to the potential investors that you know this can be a really big thing. And with that success, and we did an Indiegogo afterwards, we sold over a thousand machines. We basically went fund-raising and then we were able to get a good round finalized at the end of the summer which helps us now to basically deliver on our promises.

Balint: Yeah. How did you get to this very nice number - a thousand backers? I think it's quite a lot of work to come to this nice number of backers and the complete sum that you got. I think it's about 400 - 450000 that you got from Kickstarter. And can you tell us a little bit about that? I think especially technical founders and listeners for them it's a little bit of a gray area how to attack this problem.

Moritz: It's completely true. It doesn't happen magically. You know you don't put you know let's say a technical drawing out there and then people start supporting it [unintelligible] technical concept. I think what is important and what we have tried to do is to kind of work in unison in terms of you know with our marketing and then product which I am leading and the tech team to work together and build something that is both appealing or let's say both kind of technically like really good and works and is delivering on some core features but then I think usually the human mind also has an

emotional side and kind of you know next to the rational side which you need to kind of have a story around it and you need to make it tangible and understandable for as many people as possible and that's I think where it kind of comes in that we need to work together take team and that's a marketing team to both build a rational and an emotionally appealing product in a product offer. So I think that is the basis of almost everything we do as humans. I think it's always irrational and emotional side.

And then I think it's also important to know that it's a lot of preparation. So we were you know basically preparing I think for almost two months for this campaign. So we were collecting for example a lot of e-mails upfront of people who would be interested in this. We did Facebook advertisement for people that were to basically bring them onto our waitlist. We tried to be in the press as much as possible. We worked actually temporarily for two months with a press agency to get as much PR coverage as possible. So there are certain things you can do and I think well, I don't know if you have to have but I think they certainly helped us contribute to the success.

And I think one really important additional thing that we did and I would really recommend anyone to do is to speak to as many people as possible who have done things like that before. So you know talk to people who have done Kickstarter campaigns, ideally who have done kind of hardware Kickstarter campaigns before to really understand why it was successful for them or not and learn from that. And I think that's what we tried to do as much as possible and also try to talk to those platforms. So try to talk to Kickstarter directly, try to talk to Indiegogo directly because you know they also do promotions. You know there's like a staff pick of the day or there is you know email newsletters and things like that. So building a relationship with these platforms directly is definitely something you should try to do.

Balint: I think that these are all really, really useful. This is exactly the kind of tips, useful tips I was looking forward to hear because these are really actionable items. You mentioned that you talked to people who have done successful campaigns, already crowdfunding campaigns. You reached out to them simply by e-mail and they are very positive and constructive in replying and talking to you?

Moritz: Some yes. And I think we are also part of the community which maybe you know and maybe some of the listeners would know it's called Hardware Club. So we are part of this Hardware Club and there's a Slack group so a kind of a group where you can exchange questions like if you have any thoughts. We basically reached out to people directly through this platform and then also just you know usually people in hardware know people in hardware so you have to ask around like "Does anyone know someone who's done a campaign recently?" And so I think it's a mix of three things – so Hardware Club, people who know people and then also reaching out directly and I think you know if someone please do reach out to me as well you know if

you have a specific question. I mean do reach out to me because I know how hard it is and I can share some of my time because I think it can really be valuable.

Balint: Yeah, for sure. This is why I'm doing the podcast to a little bit to spread the information more evenly among the community who want to do similar things. So regarding the Kickstarter campaign, what technical level did you have for the product?

Moritz: So we basically had a working prototype. And that's also at least on Kickstarter, they have changed policies recently. That's what they would want to see so they actually ask you to show a video and show the inside of the product as well so they want to see that it's not just a fake thing. So we had a working prototype that you know did deliver on the core promises. But as I think most of you know going from a prototype that has built and all handmade basically and 3D printed and whatever going to a mass manufacture product is a long way.

So we basically ever since we have refined the concept and are now on the path to making it mass manufacture well, [unintelligible] mass manufacturing so making sure the costs are realistic or it you know would be interesting on the market that the reliability is there and certifications are there, all these type of things that are important for bringing it out there. But yeah, we had a working type at that stage.

Balint: Ok. Alright. And now that you're at this current funding which is 10 million, right? The seed funding, if I might share it.

Moritz: Yeah, sure, it's also publicly known. Yeah, we had I think total funding of ten point six million.

Balint: Yeah. Congrats to that.

Moritz: Thank you.

Balint: And this is from different investors, VCs, right?

Moritz: Correct. Yeah. So we had three main investors so we had our so-called lead investor so our two lead investors are the ones that gave the most basically. On one hand [unintelligible] just known as maybe known to some people as a big water and yoghurt company, so a big consumer good company. Their fund is based in New York and we have been also working quite intensively with them on the water side because they know a lot about water. So that's one and then we had another investor as a fund from Singapore that invests in sustainable food companies as well as they are really looking at disruptive ideas for the food segment. And then we had a company from Germany, maybe some people know them as well. They are the world's largest pressure cleaning company, a company called Kärcher. Kärcher, they do high-pressure cleaners and they help us quite a bit with the hardware and well, the

kind of hardware development because they would develop obviously a lot of, a lot of machines.

Balint: And so you looked for investors who added value not only in terms of money but also in know-how?

Moritz: Yes, I think both were very important especially in hardware I mean there's so much that you do most likely for the first time and I think you have to be careful also how you design the contracts but I think if you don't have the requirement to… Basically you don't want to be in the R&D department for some big corporate and you don't want to basically have them copy your ideas for sure. But if you design contracts well, you think you can design it in a way where you basically can tap into their resources if needed and their expertise but then be also kind of left alone. And this is very important. But if you manage to design contracts like that, the mode of operation then I think you can be very powerful because there is obviously a lot of, especially in Europe, I think all over the world, all over the place but especially in Germany there's a lot of manufacturing power in a lot of expertise and a lot of great engineers who can really help with certain tasks.

Balint: Yeah. I think it's important this topic that you just mentioned regarding the contract because I did hear about one horror story regarding a startup where there was a big company involved investing in them and they looked at the startup as a competitor and the investment was not so positive. So they were not really helpful for the startup in their growth. Actually, they even hindered them quite a lot in the growth. So I think it's important to find the right partner and on top of that having the right framework for working together. I think you described it very nicely.

Moritz: Yeah. I think it's important.

Balint: Yeah. And what about the technology? So how does it work?

Moritz: So the technology is in a way I always describe it. I will start with a simple story and then I'll go into something and someone details but the simple story is that we basically do the same thing that nature is doing on a very big scale you know in a machine in a box. So if you look at how nature is creating mineral water it's like this - water separates somewhere that's in the ocean or a river or whatever, water evaporating of clouds forming and then water's raining down and basically running through soil and then running through different mineral layers and that's how water is created and that's why you have a different water in let's say Indiana region and then on Fiji, on I don't know the Italian Alps or wherever your water is from because the different mineral composition of the soil. And we basically take that logic. So first, evaporation, raining and then running through rocks, we take that logic into a machine. So we start with taking water, evaporating it so we distill the water so water really changes state

and goes into steam and basically leaving all of that stuff behind you everything that's not H2O is left behind. And then we have distilled very pure water. So this is the first step. We've developed maybe a bit more about the technology. We've developed a unique technology which is using heat pump, heat pump logic to make distillation quite efficient. So to distill water in an efficient way because it does take some energy. So it's a unique technology that we've developed and no one else has. We've also patented it. And so that's the first step.

And then the second step is after the water's clean, it runs through a cartridge which we call… It's a body where the clean water comes in and then it runs through different layers of minerals and these minerals are actually natural minerals. We source them from around the world. It could be you know France or Italy or wherever, Norway, wherever we basically find the best and we put into this cartridge and the water runs through them, picks up minerals just like in nature, then you have mineral water. And because we can control the inside we know which minerals we add and we can basically control the output and water is that come out. And through this we have the very you know… We have water that's cheaper than bottled water that uses 60 times less plastic and also uses 50 times less CO2 because it does take a lot of energy and a lot of resources to produce a bottle, to transport the bottle, to distribute the bottle to the end-user and then either recycle it or refill it or whatever, it takes a lot of efforts and resources. So yeah, we think it's a good offer for people but also for the planet.

Balint: That's great. Yeah, for sure it's a unique product. I also haven't seen such a product yet and there are a lot of opportunities - B2C, B2B, so I think it's going to be an interesting time for you ahead. Now that you're expanding and growing the company, I saw in your, I think it was the Kickstarter campaign a comment. There was a recent announcement by you specifically that you're moving the organization into a more agile one. Can you describe a little bit more because I'm fascinated by this topic – agile transformation, because I really think that this is the way or only and the best way to work together, to bring a product onto the market as soon as possible?

Moritz: Yeah, for sure. So I think agile is usually a word that is so objective that is described or is used a lot in digital product creation and so you work iteratively and you work and you know [unintelligible] logic and with what we have done, what we've seen especially growing a little bit, we are still not a massive company but growing a bit in terms of people, we saw that people maybe started to work a bit in silos so to work you know "I'm in the hardware team" and "I'm in this team" and "I'm in that team" and we are doing a lot of things in parallel. So we have biology-chemistry questions about and then human physiology questions around the water to solve. We have hardware questions, we have electronics, we have digital. So this is quite a range of people and we have a lot of UX/UI design questions as well. So instead of

working in silos we designed it in a way that around what would be called work streams now and the work stream is basically, it depends on the works from itself but it usually would be a goal that's around one or one and a half months away. And the work stream always has a work stream owner and has a budget, it has clearly dedicated resources and is always a multidisciplinary team so it would be a lead who would let's say be supported by someone a little bit of capacity from UX side or from hardware side or from, I don't know, one electronic, one engineer or whatever. So that is kind of the way that we have designed it now which we started very recently and it worked. It's working quite well. And then we have basically weekly reporting session where everyone talks about their work stream and the progress and I think it enables the whole company to kind of live up and take responsibility and also takes a lot of pressure off our CTO Fabian because before that he would be kind of the single point of you know, in a way as a bottleneck, but it kind of flattens the hierarchy a bit. And that's I think quite…It's very recent but first results are quite positive, I think.

Balint: Yeah. I've just recorded an episode where I talk about actually this - agile transformation, especially for hardware startups.

Moritz: Nice. I have to look at it. I haven't heard it so I need to.

Balint: No, no, no. It's not out yet but I will let you know. There are some great resources I've found and I talked to some people. Yeah. I think there are not so many people doing it yet but you know there are a couple of companies, even big ones you know Tesla operates with Scrum if you look at the job descriptions. Also, Bosch, the whole company is being transformed to Scrum.

Moritz: Oh, I didn't know that.

Balint: Yeah. You can look on YouTube video in 2007. That was one of their goals. And there's also information on this on a Scrum Inc. you know what the company that Jeff Sutherland's company that invented Scrum. So I think there is more and more information coming out on this topic especially for hardware startups and hardware topic. So yeah, I will let you know about this episode.

Moritz: Exciting. Yeah.

Balint: So I would say all of these topics have been brilliant. I love these. And I would say now because of time let's move on to the ultrafast round, if you're fine with that.

Moritz: Sure.

Balint: Okay. So I will ask four questions and it'd be great if I could get short answers. So the first one. If you could go back in time when you were younger, like in your 20s, what notes would you give yourself?

Moritz: I think is to not think I mean to test ideas and talk to people and not try to figure everything out for yourself.

Balint: So yeah. Okay. That's a pretty good one. I like the testing ideas so validating it, for example if there's a demand on the market for it. And talking to people it's a usual problem. Many times people think that they want to solve and they can't solve their problems on their own instead of team.

Moritz: Yeah. And then you might have posted the wrong question even so I think sometimes you solve problems that are even there. And if you try to do it by yourself it becomes even more painful if you don't [unintelligible]. I think really understanding what the problem is and then like solving it jointly is something that I would do.

Balint: The second one. If you had to name a book, one book, which one had the biggest impact on your entrepreneurial career and your thinking?

Moritz: That's a good one. I do read a lot. What's the biggest impact? Well, let me see.

Balint: If you read a lot, maybe in your case I would frame it differently, somewhat differently. Top three books.

Moritz: So I think one… That makes it even more difficult. But I think one book that I'm not sure it's the most…You know, let's say that it had the biggest impact but I think one book that I recently read that I enjoyed it's just awesome, you know it's not a massive book but I think it changed my thinking of how to build a company or how to work together which is called *The Alliance* by a couple of authors but Reid Hoffman, the founder of LinkedIn is one of them and he talks about how you basically work with great people who go on what they call tour of duty. So you kind of have an alliance for let's say a three-year period and then you basically say, "This is the task that you are supposed to, that you agreed that the person would do." And then basically say, "Look, this is a three-year or two-year or whatever this agreement and then we'll talk again." And if maybe we'll jointly decide that it's now over and the person can move on because they learned everything they wanted to do. So this is I think a really interesting view of things. You know you're not committing to a lifetime anymore and it's a very realistic view I think of our working life at the moment.

Balint: Yeah, yeah. So giving people the freedom to have assignments and coming up with creative ways of solving these problems, big or small problems.

Moritz: Yeah, that, and then also saying you know be open that maybe this is a one-year engagement, we work together for one year both sides had no debts and then there's no surprise on both sides.

Balint: Very good. OK. Any other insights regarding books?

Moritz: Books? That's one book that I really enjoyed reading every Sunday. I also try not to read too many business books because I think it's quite interesting to kind of [unintelligible] your mind but think yeah, maybe this one I would recommend for now.

Balint: Yeah. All right. So the third question. I'm amazed by habits that they can have a positive effect on our life. They help us reach our goals. And do you have some routine, morning routine or work routine?

Moritz: Yeah. I think. I try to wake up early and not to work but to kind of settle my day and prepare for the day but not in terms of "I need to do these tasks" but to kind of mentally think of you know where I am and what needs to be achieved. And meditation is one thing that I do in the morning that helps. It's a bit like brushing your teeth. And I think that's quite important to me now.

Balint: Yeah, sure. I also do not so regularly meditation but I do that. So the last question is in your work because you work in a multidisciplinary team and with people with different international background. There are cultural differences. Which one, which differences would you pick that you wish you knew about and how did you resolve those issues?

Moritz: Yeah. I think it's a good point. I mean we are in a team with, I think we are now 16 or 17 countries. It's interesting we rarely have people from the same nation. It's always one person from one country so that happened. I think the topic water attracts quite an international crowd. In Berlin where we are based also attracts quite international crowd. And I guess once you've started this route and you have more international people coming in as well. So this is definitely a topic we're facing I think. It maybe it sounds like too good to be true but we are not facing any problems with that. I think the important thing is strength first and I think the important thing it's not just nationality, it's diversity. You know we have quite a lot of female engineers and female you know a basically team, for example all our digital team is almost only females. Interestingly, it just happened. And I think it actually is a strength for us bringing in different perspectives. I think the one thing is that you need to be maybe a bit more patient, things maybe take a bit more time. Not everyone is you know first language is English for example which is maybe sometimes takes a bit more time but I don't think it is a disadvantage. I see it as an advantage. And I think the prerequisite for it to work how it is at work is mutual respect, trying to respecting the other's perspective in terms of content so you know cyber engineer would have a different perspective than a marketeer but the same is true for a male or female or whatever or someone from South Africa compared to someone from Norway.

Balint: Yeah. So these are the points you would stress so mutual respect and patience to overcome the cultural differences.

Moritz: I think so, yeah.

Balint: All right. All right. So that was it, the ultrafast round. I think we covered quite a lot of interesting points and I encourage the listeners as you also said that they can reach out to you to discuss or commenting or also to me if there's any questions. What is the best way actually for anybody to reach you?

Moritz: I think you can just write me an e-mail to moritz@mitte.co. I mean if they don't know how to spell and just look on our website and the About us and you'll find my name.

Balint: OK. Anyway, I will put it also onto the website into the contact section for this post.

Moritz: Yeah. Perfect.

Balint: I appreciate it very much, Moritz.

Moritz: Same here.

Balint: It was a pleasure.

Moritz: Cool. Thank you.

Balint: Thanks.