



## Equality Talks Podcast - Transcript

### Episode 4: Young Women Rising and STEM Careers with Anastasia Volkova

Equality Talks, brought to you by WORK180, where we discuss how to finally put an end to workplace discrimination. Let's talk about what it really takes to succeed, what people are doing to drive equality, and what can still be done.

Samantha Sutherland (WORK180):

Anastasia Volkova is the CEO and Co-Founder of FluroSat. She has a PhD in aeronautical engineering from the University of Sydney, and her passion is earth observation, automation, and efficiency. Anastasia believes the world can be a better place if we make smarter decisions.

New Speaker:

She is an Amelia Earhart Fellow, one of MIT's Technology Review Innovators 20 Under 35, with three degrees and a doctorate thesis on autonomous navigation systems. Anastasia has led a team of 370 people for the European Football Association, managed software development teams for American and European companies, started her own web development company, and co-founded a successful event management startup. With a very impressive CV, I'm really excited to be talking to you Anastasia, thank you so much for joining me.

Anastasia Volkova:

Thank you for having me.

Samantha Sutherland (WORK180):

I'm really excited to be talking to you, because you have such an impressive CV, and you told me just before that you were one of MIT's Technology Review Innovators 20 Under 35, so you have such an impressive CV, and you're also really young, and so I'm really excited to hear more about your story.

Anastasia Volkova:

Well, I'm always excited to share my story to see if it inspires more people to be a bit braver, and a bit more of risk-takers. I'm not sure if I'm doing anything for the impressive CV, I just want my life to be fun, and I want it to be meaningful. I think I easily get frustrated or bored with meaningless work, so that's I think what's led me to have the CV that I have.

Samantha Sutherland (WORK180):

Right, that's interesting that you talk about bravery and risk-taking, so what are some of the risks that you've taken? I mean, a lot I imagine to get where you've got, but can you tell us some of them that felt scary at the time?

Anastasia Volkova:

Oh, yeah. It's an interesting question, I don't often get this question, so it's a very interesting thing to think about. So what comes to mind straight away is probably putting yourself out there with a commercial product wanting to help people knowing it's not perfect, knowing that it's better than what they have, that people will always see the ways to improve something rather they see the presence of something as a benefit, you know what I mean?

Anastasia Volkova:

The absence of negative, it can so easily get people into complacent mode of, "Oh, this is what it should be." Whilst the presence even a bit of negative, even a bit of something that's not perfect, even a bit of something that takes a bit longer than they want is already a topic of the conversation, and so imagine if you're bringing the product to market, how many things you need to make decisions on, not all decisions you can make in a way that is the most patient and resourced, you just simply do not have innovative resources, and that means that you're constantly in the mode of compromising and balancing the priorities.

Anastasia Volkova:

I think that was probably one of the biggest risks that I've taken, and seeing that it's worked for some people, seeing that it's worked for majority of people who were trying it, seeing that it can be explained why certain things are not perfect, and why the world is not perfect, even if they want it to be, and I think it's one of the biggest risks to put yourself out there, to put your creation out there, to be pushing new ideas, to be disrupting the industry to achieve something that's better for this world, although might also cause some disagreements, but that's the price of it.

Samantha Sutherland (WORK180):

Well, yeah. There's a feeling of risk I think around bringing an imperfect product to market as you say, it feels like it's you that is being assessed, I think, sometimes because it's your idea, it's your baby, and you know it's not perfect, but we never get perfect.

Anastasia Volkova:

That's right, that's right. I think that's particularly something that is very challenging, to try and detach yourself from it, I think it's much easier when you have a larger team, and it's not all decisions you made yourself, but it's very challenging to detach yourself from the implications of your decisions.

Samantha Sutherland (WORK180):

Yes. So have there been times when you know that it's time to take this imperfect product to market, and you have to talk yourself into actually doing it, is that actual step of going to market a difficult one for you, or does it feel scary but still doable?

Anastasia Volkova:

Yeah, absolutely. It feels scary but it's doable, you can see that what I've done before really is a testimony to it. I think I am impatient enough to say we need to get someone's feedback on this, it's not an in-house product, it's supposed to serve customers, let's find out what serves them the most, and for this we need to put ourselves out there, because otherwise it's worth nothing. Our efforts are worth nothing.

Samantha Sutherland (WORK180):

Yeah, I really love that. One of my favourite expressions is don't let the perfect get in the way of the good.

Anastasia Volkova:

Absolutely. Exactly. Yes, I couldn't agree more.

Samantha Sutherland (WORK180):

So we kind of led straight into you as a risk taker, but I was wondering if you could tell us a bit about your career path, and what's led you to found FluroSat.

Anastasia Volkova:

A bit about my career path, well it's an interesting and probably not so windy one, but still has a few twists and turns in it. So the shortest version of, I guess, telling my story is that I discovered when I was doing masters in aerospace engineering that real world business and applications were much more exciting than academia, because you could actually see the benefit of what you were doing, and bringing the innovation or technology in line with the commercial need, in line with the customers who are requiring a problem to be solved, and that is what really energizes me to date, and hopefully will be for the rest of my life, and at that point I realized that, "Okay, well, maybe I do not want to be in academia." And in parallel with my degree I started looking at some opportunities to I guess become an entrepreneur, some ideas that I wanted to get behind of myself, and put some work into developing them.

Anastasia Volkova:

I was fortunate enough to meet then a co-worker, but shortly after the co-founder of our first business, and it started there where I got the first taste of what it feels like to develop products, to build software for real people who will pay you only if you solve a real problem, and you not just solve the real problem but you do it in scope, in time, in the way, colour, or shape, and possible delivery options that they wanted to be. So I learned quickly that a narrow focus of academia is very different from the broad focus of the real world, and ever since I was drawn to commercial applications of science and technology, and to really see that intersection of where the innovation meets the market, because this is the only way that it can be sustainable. If innovation is creating the market, if innovation is unlocking efficiency, this is where it can be self-sustainable.

Samantha Sutherland (WORK180):

It's so interesting, I love how you said that you realized commercially people pay you to solve a real problem, and so it can't just be a theoretical, it has to be really useful out in the real world?

Anastasia Volkova:

Yeah.

Samantha Sutherland (WORK180):

It's the only difference from academia, so tell me more about FluroSat, and what you actually do there.

Anastasia Volkova:

Yeah, so maybe just how I got there in the first place. I was kind of meandering between academia and commercial world, and in the second little event startup that we had I realized, "Okay, well, there was an unfinished chapter in academia, and I actually do want to go back but I want it combined with something applicable in the real world."

Anastasia Volkova:

I took on the PhD at Sydney Uni, and during that PhD I discovered that by applying remote sensing techniques, which means that you are making observations with some sensors, maybe cameras, maybe other sensors of objects that are remote, you can actually, by choosing those sensors right, you can get a lot of information about the object you're observing, and this is a complicated way of saying that if satellites are looking at earth, and they're not just capturing the visual light but they're also capturing infrared, there's a wealth of information there that helps you understand if the land you're looking at is healthy, and how is it doing, and what is it experiencing in terms of water, or nutrition, or other needs.

Anastasia Volkova:

So my PhD was mostly in the application of remote sensing to defence and surveillance, but it didn't escape me that the same environment I was looking at had agricultural purpose land in it, and so this is how I ended up investigating what can be done for agronomists, and agronomists are crop advisors, so people who are making recommendations for crops to be grown more efficiently with less fertilizer, less water, but to hopefully achieve more yield, or how to economically manage challenging situations like drought in Australia, how to economically manage situations when there are floods as well, or just simply water availability.

Anastasia Volkova:

So what FluroSat does is delivers a decision support system to these crop doctors, agronomists, to help them be more efficient about making decisions, and it basically is like a baby AI agronomist that is taught by a real agronomist to help them do their job better.

Samantha Sutherland (WORK180):

It's such a fascinating topic, and I think it's really timely. Australia is right in the middle of its worst drought in history, and so are you seeing significant changes in the data that's coming back in the time that you've had FluroSat given the drought, or not really because of the age of the company?

Anastasia Volkova:

Definitely. We started in one of the wettest years, and now we're in the driest year, so definitely. It's something that's in three years has changed completely, drastically, and from a maximum to a minimum, and we're hoping that we reach the minimum, we're really hoping that that's the case, that we're not going to go anywhere further in that direction of reducing the amount of resources available to us, we're hoping it's going to be regenerating itself soon, it's going to be recovering, the situation will

be improving, but certainly we have seen a huge reduction in planted arable land, we have seen a huge reduction in available water to use for agriculture, so it's been all pretty impactful, and that's as far as our Australian business goes, because our US business experiences are almost the opposite, because it's been flooded this year, the US plane rather than the opposite of Australian drought.

Samantha Sutherland (WORK180):

All right. Yeah, it's interesting because I really pay attention to Australian politics, and the impacts of the climate change here, but not so much in the US, and so I didn't actually know that the plants have flooded in US. So you're actually trying to help people with totally opposing problems at the moment?

Anastasia Volkova:

Absolutely. Absolutely. Using the same tools, making them as agile and as scalable as to take in all of the possible cases, including the complete opposites.

Samantha Sutherland (WORK180):

How do you determine which data sets are going to be the most useful to actually provide helpful information? Because you can't just dump everything on people or it stops becoming useful, but you also need to make sure that you give enough that the agronomists who are some real specialists in the area get the information that they need, how do you decide where to stop?

Anastasia Volkova:

It's an amazing question, and we're deciding where to stop every day I think, in every decision we make we're making that decision, we're making that compromise, we're seeing that trade-off of for how many of our agronomists will this be helpful? For how many of our agronomists will this be too much? What is the profile of our customers? How do they make decisions? And just earlier today we were catching up with our customers and their agronomist is definitely a leader, and they are extremely forward-looking, and he wants a lot of detail, and we need to balance that with people who are not able to make decisions with deeper data layers, people who just have to make a decision based on some pre-baked analysis that we would have delivered. So it's a fine balance between overwhelming them with the options to customize their decisions, and actually doing it for them almost.

Samantha Sutherland (WORK180):

Yeah, and also your background initially, not initially, but your academic background has gone through aeronautical engineering and this autonomous navigation systems and things, but now also you need to be able to interpret the data about the land enough to be able to provide useful information, so has that been a big learning curving as well?

Anastasia Volkova:

I'm not sure how to measure the bigness of this learning curve because I enjoy learning, I would say I enjoy every day that I've learned something, and in our business we learn something every single day, every single day when we speak to a customer, when we internally work on challenges, when we do our research, when we roll out commercial applications, we learn something every day, and I definitely am quite passionate about continuous learning, life-long learning, so to me it's been a delight to understand how the world of plants work, and try to make sense of how they can be sensed and monitored from remote sensing, from satellites, from IoT sensors, by collecting data from tractors, and then putting it all

together in the model where it can help agronomists inform their decision in a very simplified and streamlined way.

Anastasia Volkova:

So it's not just learning about plants and their physiology, and their growth stages, and the farm management techniques, it's actually learning more about our customers, the agronomists, what is their workflow, what are the types of agronomists out there, what are their job titles, what do they do, how to help them, what are the systems they use, where it needs to fit, and I think one of the advantages that we have in our company is, I guess, intolerance to just leaving it there and not thinking hard enough to fit it in for them, to do the work of integration for them, to think it through for them.

Samantha Sutherland (WORK180):

Interesting. So I have two questions for you, so one is, is there a level to which your work has had to become political. Because you can see what's happening on the land, and I would imagine that you have ideas through all the things you've learned about the better direction in some circumstances, so do you offer that kind of suggestion up or you just provide data and that's it to the agronomists, and leave the decision making for them? And with the fact that Australia's drought is so extreme at the moment, do you feel like there is an element of wanting to influence what's happening?

Anastasia Volkova:

I guess to be realistic about it there are different planning strategies, and there are different management strategies for situations like this, I wouldn't say that it's easy, it's not easy for anyone, but there are some good yields in this country even in a season like this, and this is because the agronomists and the growers who are managing those fields are making decisions in a specific way, and I would say of course notwithstanding that they had rain before, maybe more than other parts of the country, but it also just showcases that you can be smart about predictive modelling, you can be smart about management of your fields, it doesn't stop us from donating to farmers as a business, as people, personally I still think that not everyone can be just saved with a decision support system, but we stand behind agronomists, we support their decisions, we believe that they understand the local situation the best, and more importantly they understand the farmer's situation the best, as well as the nuances such as readiness to take up this technology, or the family situations, financial situations.

Anastasia Volkova:

This is something that only to an extent can be covered by collecting numbers and data points and putting the user interface in a way that collects that information to utilize it, to have context, but we will always need those amazing crop doctors out there to connect us to the ground, to take us out there.

Samantha Sutherland (WORK180):

I love that phrase, to connect you to the ground, because that makes a lot of sense when you explain it to me, because what you're doing is remote, and so you do have one view of it, and you're connecting that view together with the kind of existing on the ground view.

Anastasia Volkova:

Exactly, exactly. There are eyes on the ground, yeah.

Samantha Sutherland (WORK180):

Yeah. Okay, so my second question is, you said it's hard to gauge how big the learning curve is because you just really love learning, what has been the biggest surprise in your learning through founding FluroSat, in any part of it?

Anastasia Volkova:

My biggest surprise has probably been that everything can change over time, it's a quite fundamental life realization, I know, but still the people who are not understanding you or not accepting you can become your biggest supporters, the doors that you couldn't open and you couldn't imagine yourself opening before can now be open for you, it just takes persistence. I had no idea that the whole world can be taken on, and I'm not saying I've done that yet, but I believe that this is the case now with persistence.

Samantha Sutherland (WORK180):

I love that. I actually did another interview with a guest on Equality Talks, and she was talking about a job opportunity that had come up, and she just couldn't come to terms with taking this opportunity on, and she spoke to 15 different people about whether or not she should do it, and she did end up doing it, and then two years later she said she ended up opening the door that she had been knocking on previously for 10 years, and you just never know what's going to come out of saying yes to things.

Anastasia Volkova:

Exactly, exactly. You don't know, and that's why it's actually a bit of a cliché phrase, but I prefer to be a yes girl, I prefer to take those opportunities and see where they take us. Not everything is considered to be a good opportunity because there are some distractions, speaking directly from the business perspective, it can be just things that are taking you in the wrong direction and you need to keep a steady focus, but if there are opportunities that are in line with your focus, and in line with where you want to be, we very actively pursue them, even if they're risky, and if they're scary, even if then.

Samantha Sutherland (WORK180):

Yeah. Well, and I agree with you, to respond to your cliché with another one, I think we rarely regret the things we do, we regret the things we don't do.

Anastasia Volkova:

Which is kind of a waste of time.

Samantha Sutherland (WORK180):

So farming, and agriculture, and engineering are all fairly male dominated industries in Australia, farming has more men in it than women, and when I was at the University of Sydney doing a mechanical engineering degree there would often be six women in a lecture theatre of 200, and I think aeronautical was about the same kind of split, or was back then anyway, so can you talk about your experience coming through these non-traditional industries?

Anastasia Volkova:

Yeah. I was someone who tutored mechanical engineering at University of Sydney and seen that hall with only six women whose names I definitely knew. Absolutely, that is the case, but I think it's not for the lack of trying, I think it's not for the lack of trying from environment to enable it, I think it's just hard

to undo. It's easy to design for good things, it's very hard to redesign things, because once you already have say a male dominated environment, how would you incentivize? How would you attract a female into that environment?

Anastasia Volkova:

That is just not something that's natural, it doesn't kind of work, it's not like we want to confirm with a cliché or a standard, but it's psychological, we are human but we're animals, we're in a group, we're social animals, and we see the group, and we associate yourself with it or not, and that starts at that point, and then you work with biases, and then you work with prejudice, and you work with all those points, but then ultimately it's hopefully going to be easier for females to enter male dominated fields to find out that it's not that bad, to find out there's nothing too scary about it.

Anastasia Volkova:

So, I would say that I only, and it's going to sound slightly strange and coming from a negative angle first, but I have only experienced very few unpleasant interactions in this industry with senior male counterparts, very few, only two so far in three years, and I see a lot of people every day, a lot, many, many meetings, so if we were to do numbers it'll be what? 0.1%? Hundredth of a percent? Is that worth the risk to take this on? Of course it is.

Samantha Sutherland (WORK180):

What do you think can be done to start to shift it? Because you were saying, as women go in they start to see actually it's fine being in an industry that has more men in it than women, but that's an individual response to it, so what do you think can be done to attract more women in general into STEM subjects and industries?

Anastasia Volkova:

I think after moving to Australia I noticed that there's a particular cliché around it in education, in academia, that it's hard, or that it's not necessarily something that's been satisfactory and rewarding for women to do that type of work, and I think that that stigma has to go, it's the same as stigma around depression, or stigma around other mental illnesses or challenges that are temporary firstly, and secondly they are also based on perception, and your individual perception.

Anastasia Volkova:

So instead of agreeing with this blanket approach of, "Oh, STEM is difficult, and all male dominated industries are hard and going to be patronizing and horrible." Why don't we start engineering programs in which we can attract more women into STEM related careers, so that maybe the mothers will tell the daughters, "Why not? Why not to offer those programs?" Because where is it coming from? Where are they getting it? From social maybe, from maybe their experience of their parents, or their peers, and I think this experience can be fundamentally changed.

Anastasia Volkova:

I've been fortunate to study in the groups that were, not just engineering group, but also had strong focus on other subjects such as international relations, or management, or simply doing a degree in English, all of my degrees were in English, and that English focus attracted more women, even though it was a STEM major, and that made it simpler for me.

Anastasia Volkova:

We still weren't the majority in the room, but it didn't feel alienating, and so I think by designing the opportunities to mix in those different groups to make it something that might be not just like a cocktail dinner night, or open-house at a place that is normally known as male dominated, but also to host something that's a bit more female oriented in that space if they want to attract people who want to know that this company, or this institution is going to be welcoming, because I've learned so much about biases that women have when they are approaching work that unfortunately I couldn't really see in myself, I couldn't really relate to them because I was fortunate in some experiences to not be feeling odd and awkward, or not feeling too odd or too awkward, and I think by designing those experiences we just can fundamentally slowly, little by little, change that trend, change that experience a person at a time.

Samantha Sutherland (WORK180):

So what are some of the biases that you've observed in women with their approach to work?

Anastasia Volkova:

I guess how they evaluate the company, for example, even for our technology company it's extremely hard to hire women as engineers, because there simply aren't enough female engineers in Australia for our engineering team, and trying to hire them, we are absolutely dedicated to have equal or high number of female candidates for the role, and we keep searching, and we keep searching, we keep interviewing, but then ultimately we need to make a right decision by candidates, right? So we're selecting just a person who is objectively better for the job, again, trying to make sure that there's enough female candidates who are going through the process.

Anastasia Volkova:

I think now we're seeing the trend of data scientists, and female engineers, or people who are aspiring to do data science be more attracted to it, and so maybe in some time, in a couple of years, we will see a bit more over the emerging sector of actually female data scientists, but I think the bias that I wanted to highlight there is that it can be a little bit polarized when someone looks at a company and says, "Oh, they only have five female when they're a 25-people company, what's wrong with them?" And I'm trying everything to just have amazing people in all positions, and I would love to have more women in my team, I would absolutely love that.

Anastasia Volkova:

And we're doing everything possible for it, and yet we are where we are, and it's not great, but this is where it is right now, because we are predominantly a product engineering science company, so 20 roles that we have are in engineering, can we easily replace the folks that we have with the ladies just for the sake of it? No, can we hire more ladies on the team? We're trying as much as we can, but we're seeing that that market is only emerging, and so I am suggesting that the bias might be, or this company hasn't really succeeded in it, they haven't tried hard enough, whilst I think what would be much more fair to any company is actually to come in and experience it, to come in and experience it because I have found so many times in my life that male engineers, male counterparts, male product managers, male customer success people, male whoever, male professionals, that doesn't define them as anything but the fact that they're a certain gender.

Anastasia Volkova:

They don't come with a preconceived biases against women, they don't come with anything but the fact that they're a person, and they're a professional, and I in my life experienced so many times being supported by men better than I was supported by women, that they held me up, that they supported me, that they taught me, that they really were passionate about bringing me up to speed and having me around, and my success is attributed to great men in my life, of course to my mother as well, but to the guys who helped me grow to who I am, to my co-founder Aleksey, who met me when I didn't really know how to do any of this, and stuck with me, and said, "You have something that complements what I have, and we're a great team, and we'll do it together, it'll be amazing."

Anastasia Volkova:

He would be someone who's nurturing his nieces to be just like me, and I want all the ladies to have the realization to it, that there are many gentlemen out there, not just men.

Samantha Sutherland (WORK180):

I actually really love what you said too though about how we can see, because I think I would probably fall prey to this bias, where if I saw a company that was 20 men out of 25 my assumption would be that they didn't have a commitment to an inclusive culture, and to diversity as a rule, so if a woman is looking for a new job, and is looking at different companies, and sees these kind of imbalances but then wants to actually find out whether, like in your case it's not representative of the effort and intention, it's just where the company is at right now, what kind of questions should they ask to determine that do you think?

Anastasia Volkova:

I think the women that came to work with us are asking the right questions, and I think just more women should be asking those questions, so I'm going to be telling you the examples that I've heard from the ladies who work with us, rather than what I can come up with because I don't really know how to put myself in that situation. So the things that they were asking about is like, "Is there a flexible working day?" Absolutely, "Is there an opportunity to work from home?" Absolutely, do you even ask those questions? Do you even think about it? Do you even think that half of our staff has kids, families, and partners, and this is what they have to do, whether they're male or women, that doesn't matter, we're trying to promote the fairness of treatment, and if there was for some reason more that one of the partners had to do and they had to arrange it at work, who would certainly be open to it?

Anastasia Volkova:

I think those are the questions to be asked, like what is the culture like? What are the working days? What are working hours? How are we working? When are we doing this? Can we work remotely? Can I accommodate for kids' pickups, or drop-offs? Can I accommodate for a day off with my husband because it's our anniversary? Can it be planned? If it can be planned it can be done, this is our philosophy, if you can give me enough heads up, and everyone's on board with it, and there is no major deadline that is being disrupted by it, please live life, you will be better off living life than living work, and work is only part of your life.

Samantha Sutherland (WORK180):

Yes. I love that answer. I do think you are clearly an innovative thinker, and not everybody is as progressive in their thinking as that; however, with WORK180's endorsed employers, one of their requirements to list on the site is that you're open to a discussion about flexible work at interview

phase, and so as you were talking I was thinking, "Well, an interesting point is if somebody's willing to write a company off anyway, then you might as well go and have those difficult conversations and really ask for what it is that you want at work, because if they say no you're in the same position as you were when you wrote them off in the first place, but they might say yes and you might find that actually the company is more committed to flexibility, and to inclusion, and making sure they have a team that really feels like they belong than you first suspected."

Anastasia Volkova:

Exactly Samantha, that's just such a great idea. It's like if you are already in the know, what does it cost you to maybe try and find out whether your assumptions are right or wrong, and if it's a prejudice and a bias in the first place? There is a pleasant feeling when you're growing and discovering that the world is not that bad.

Samantha Sutherland (WORK180):

Yeah, and also having those conversations, because a lot of women do worry about talking about things like flexibility early on in a job application process, because they're worried about there being kind of negative marks against their name, which I can totally understand in some cases can be a valid fear, but also the more times you have that conversation the easier it is, because you're used to actually saying the words, and the way you phrase it, and what you ask, and how you respond, and all that stuff, so at the very least you would get practice, like asking the questions that you want to ask of some other company another time.

Anastasia Volkova:

That's right, but also I think it's a reflection on employer, would you like to even be in a job interview when someone shrugs and kind of looks puzzled when you ask about flexibility? Would you like to see yourself in that company? Surely not, it's like dating, one of my employees often says that hiring is like dating, you get a sense of whether this is the right thing for you or not pretty quickly.

Anastasia Volkova:

So, asking those questions to accelerate their decision to really put to the test what the company stands for in their culture and their values, it's that simple, just asking one question, or two, or three, or however many you want.

Samantha Sutherland (WORK180):

Yeah. So I was hoping you could tell me a bit more about some of your pretty amazing achievements, so tell me about the Amelia Earhart Fellowship, what that is, how you achieved it.

Anastasia Volkova:

Amelia Earhart Fellowship, so firstly Amelia Earhart is an amazing aviatrix, and she remains extremely inspirational, and Zonta International is a foundation that awards these fellowships, and they promote women in engineering, and specifically in aeronautical engineering, because she was an aviatrix, and now they extended it to engineering a bit more broadly, and so the fellowship was quite a beautiful way to support me in my PhD to basically have more funds so I could focus on the projects that mattered to me rather than do some weekend jobs on the side.

Anastasia Volkova:

So, effectively it's a certain amount of money that gives you just that little bit of support, it's not anything outrageously high, but it's just enough to not run after small jobs that keep you distracted from your studies, or from the projects you want to be really working on, and developing, and so the fellowship is awarded for the contribution to aeronautical space, and especially for female contributors to be recognized. I think it has to do with that bravery, it's how Amelia Earhart took her flights, it's a bit of bravery to enter the space that looks complex, and weird, and also male dominated.

Anastasia Volkova:

So, it's taking the risk, and also just bringing more value to aerospace as an industry in terms of other applications, so we found quite a promising applications for aerospace derived data in agriculture, and so this is how the award came about, there was an application, it was endorsed by referees, one of them was my PhD supervisor who knew me quite well, and knew my aspirations, and I was extremely lucky to get awarded that fellowship, and I think there were certainly less than 30 people across a few disciplines who were awarded that fellowship globally, that year, every year it gets awarded. So that's the story about the Amelia Earhart Fellowship, led me to FluroSat, and it's opened my brain a little bit, and freed me up from odd jobs so I can focus on what I wanted to do, and I think FluroSat appeared a bit after that, shortly.

Samantha Sutherland (WORK180):

That's amazing, because that is also exactly what their fellowship is for, right?

Anastasia Volkova:

Exactly.

Samantha Sutherland (WORK180):

It has made a whole-

Anastasia Volkova:

It worked.

Samantha Sutherland (WORK180):

Yeah, but I do want to go back to one word that you used though, which is that you said you were lucky, and I think that you probably weren't lucky, and that I think it's really important as women that we acknowledge the hard work, and effort, and it's not lucky it becomes inevitable even sometimes, because you have put in the hard work, and it's not just that your name got pulled out of a hat and you were the lucky winner, you worked very hard to get there.

Anastasia Volkova:

It's not a lottery, yes. It's not a lottery, but still there's an aspect to which you apply in a certain year, and there's certain conditions, and there's certain other applicants, but you do all the hard work, I think the assumption is that everyone who was the girl who applied for that did the hard work, but maybe I just did a little bit more of it.

Samantha Sutherland (WORK180):

Also, I wanted to know more about MIT's Technology Review Innovators 20 Under 35, you could tell me a bit about that because that's an impressive list to the amount.

Anastasia Volkova:

Yeah, that's pretty amazing, still can't believe it really. So, they have chosen for each of the regions, and so mine applies to APAC, so for each of the regions they determine who are the promising innovators, and many of them are co-founders of startups, or CEOs but not founders, majority of them are older than me in this list, a vast majority, probably I am in 10 percentile age bracket-wise here, and so it's very exciting because previously this award has been given to Mark Zuckerberg from Facebook, and few more very notable high achievers that changed something about the world.

Anastasia Volkova:

My opinion of Facebook remains private, I do not have one, but as to how it changed and connected the world, it's just mind-boggling, the scale of impact, which it can be credited for definitely. So that's how the word came about, there were obviously applications referees stages of assessment of my life to date to make that decision, and it was announced too very recently on December 5th, if I'm not mistaken, and there'll be a conference in Singapore in February where we will visit the amazing Singapore, it'll be my first time not just layover in the airport, but actually visiting the city, and there'll be a conference with other fellow innovators and awardees nominees to learn more and present our work to the world, a bit of a TED style talk there.

Anastasia Volkova:

I'm really looking forward to it, I think it'll be very exciting, and I would just say that this award, I definitely attribute a large portion of it to the team's effort that we have, the FluroSat's team effort, because I believe that without them I wouldn't have been able to stand on the stage that I stand, and to have conversations about things that I'm talking about.

Samantha Sutherland (WORK180):

Really amazing, huge congratulations on both those awards, it's really, really impressive.

Anastasia Volkova:

Thank you very much.

Samantha Sutherland (WORK180):

So I'd like to close with a question, which is, now I know that you're still pretty young, but if you could go back like a decade, or to the beginning of your studies, or something like that, what would you tell to young Anastasia about what was to come, or what you know now that you didn't know then, or words of encouragement, what would you say to young Anastasia?

Anastasia Volkova:

I would tell her not to doubt herself, I would tell her to just believe that what she thinks can be appreciated, she just needs to find the right audience, the right people, and the right place, and her vision can be appreciated, and will be, because I think it's very hard not to doubt when you are an outlier in your social group for a long time, but I think as Steve Jobs was saying, "The world was built by someone, and you can be the one who changes it, because you can decide how it needs to be built or

done differently." So I think if young Anastasia knew that, I think she would have been just calmer about the decisions that she was making, less worry.

Samantha Sutherland (WORK180):

I love that, I love that answer. Yeah, because you said how the MIT Innovators Under 35, it had people like Mark Zuckerberg on it before, and so you're positioned to change the world, and I think the needs in terms of food security are changing as global weather patterns change, and as they become more extreme, and you'll be part of solving that, part of feeding the world in the future potentially.

Anastasia Volkova:

There's a lot of work that needs to be done to make it happen, but we're really trying to rally the troops of support to make it happen together in partnership with other very important institutions that are contributing to this efforts, so I hope I'll be able to be a minor speck of dust on the change vehicle as it rolls out for our future generations.

Samantha Sutherland (WORK180):

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