

WE ARE ETH – Episode 43

With Suzanne Thoma, ETH Alumna, Executive President of the Sulzer Group

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[00:00:00] **Suzanne Thoma:** You can always learn later on in life about economics and business administration and all of these things. But to really study engineering at a very good school, that's a once in a life chance.

[00:00:15] **Susan Kish:** In this episode, I'm talking with Dr. Suzanne Thoma, ETH alumni and executive president of the Sulzer Group. This is the We Are ETH podcast, and I'm Susan Kish, your host.

Susan, good morning, good afternoon. We're so delighted to have you here. You are described by the NZZ, no less, as the most powerful woman in Swiss industry. Is this correct?

[00:00:46] **Suzanne Thoma:** Depends by what you measure it. There are luckily some other women who are important in Swiss industry and have, uh, great achievements. Uh, so I wouldn't claim that title for me, but I'm certainly among of, uh, not so many women who play a role in Swiss industry.

[00:01:05] **Susan Kish:** And it's also wonderful that it's with Sulzer. If I recall correctly, Sulzer is founded in something like 1830s. I mean, it is one of the real industrial legacies of Switzerland to the world. How did you join their board? Because that seemed to be the start of that journey.

[00:01:23] **Suzanne Thoma:** I joined the board at Sulzer because I was on another board of, uh, OC Oerlikon, and these are partly the same board members, only one

or two. And then they, after having seen me being on the board of OC Oerlikon, they recommended me then for the board of Sulzer.

[00:01:42] **Susan Kish:** Ah, so that board network worked to your advantage within this context. And then within the board of Sulzer, what did you see as the opportunities and challenges when you join that board.

[00:01:56] **Suzanne Thoma:** Well, it was very interesting because we realized that a lot is going on in our environment, that technologies are evolving fast. And as you mentioned, Sulzer is 190 years old. So the question that we asked ourself is, what's the future for Sulzer? And our first idea was that we had to change markets.

That what we were doing as a company internally with production and all these things was quite good and quite efficient, but that our markets wouldn't be there in 10 or 20 years. But we went into a very deep strategic analysis, actually took about nine months because we talked also with many people.

And then we came to the opposite conclusion. We are exactly in the right markets, but we as a company, we have to become stronger and fitter and leaner and better in many things that we do.

[00:02:54] **Susan Kish:** Oh, that's interesting. So the markets you're in, which were things like, I think the phrase I read on your site was, flow, control, innovation.

[00:03:03] **Suzanne Thoma:** Yes, but these are not markets. These are things that we do, but it's very good that you are pointing that out to me because it was part of our analysis is what are the markets really that we are in? We couldn't have said it just ABCD two years ago. Now we can. And these markets are indeed very essential for society around the globe.

It's energy security and energy transition that, by the way, belongs together. It is not a contradiction. Then natural resources and then the whole process industries. And so we say that Sulzer is really active in markets that are essential. If you think of natural resources, you can think of water, that's easy.

But you may also want to think of what enables digitalization and artificial intelligence and all these things we keep reading in the newspaper. Power, absolutely, that's energy and so called green minerals. Which are right now not being one in such a green manner. So we need more copper and more lithium and more cobalt and more everything, if we even want to think about artificial intelligence.

[00:04:23] **Susan Kish:** So what does Sulzer do in those markets? I don't think of you as a mining company.

[00:04:28] **Suzanne Thoma:** Yeah, we are not a mining company, but once we have, uh, these minerals out, they are there in a slurry, for example. And we can contribute to separate the minerals and to purify them in an energy efficient and cleaner way.

Today, if you look at lithium, often they just lay there in water, and the water evaporates, leaving, uh, huge mess in these countries and one can do this in a much cleaner way. This is where we are active.

[00:05:01] **Susan Kish:** Got it. Cause I have to say, I did not understand what flow control innovation meant.

[00:05:06] **Suzanne Thoma:** Neither did I.

[00:05:09] **Susan Kish:** That's vaguely reassuring. The markets that you do describe though, energy security, energy transition, those are the markets for the balance of the century.

[00:05:19] **Suzanne Thoma:** Yes. And this huge, huge markets, and obviously we are not such a large company. So we select within these markets exactly those applications or segments where we can contribute most. And that is normally where it becomes difficult. We can contribute most there where you either have to transport some fluid on some gases or where you have to purify it and separate and that always in very difficult environment, be it abrasive, be it corrosive, be it high temperature, crazy stuff that you can solve with good engineering.

[00:05:57] **Susan Kish:** I can only imagine that a Phd. in chemical engineering from the ETH is helpful.

[00:06:05] **Suzanne Thoma:** In my role, you have to be careful that you don't try to be smarter than your engineers.

[00:06:10] **Susan Kish:** Uh, yes,

[00:06:11] **Suzanne Thoma:** Your role is, uh, to create boundary conditions and, uh, an environment where they can do, uh, uh, good stuff. But it is helpful to be an engineer because you will find out if they are telling you things that are not very logical and don't really make sense, you will find out faster because that happens sometimes with engineers as well, particularly when they're too much in love with technology. We need to sell these things at the end of the day.

[00:06:39] **Susan Kish:** Oh, it makes total sense, because it means you can ask good questions, right? Because you, your spidey sense, as the expression is, is very robust about what makes sense. And you have no fear about asking questions and thinking that you're stupid. You'll just ask the questions, right?

[00:06:55] **Suzanne Thoma:** That's mostly true. Yes.

[00:06:59] **Susan Kish:** Understood. So when you were growing up and you made some of your decisions, did you ever anticipate you would end up as a CEO of one of the oldest companies in Switzerland?

[00:07:10] **Suzanne Thoma:** Um,

[00:07:11] **Susan Kish:** Was this your objective, I guess, is the way that I would ask.

[00:07:14] **Suzanne Thoma:** Yeah, from a certain point in time, um, of course not as a small child and also not too early, but, uh, yes, not one of the oldest company in Switzerland, not Sulzer, but, uh, working, having a professional career, uh, having achievements in my career that was important for me right from the beginning.

[00:07:35] **Susan Kish:** Let's go back a little bit to your decision to actually go to the ETH, right? I have read this wonderful quote in a profile of you from the 2015 where you talk about a story of your older sister, her teacher calling your mother, and saying she had passed an exam to get into grammar school, but you don't need qualifications to peel potatoes. Can you tell us that story?

[00:08:05] **Suzanne Thoma:** I grew up in, in the Canton of Zug

[00:08:08] **Susan Kish:** Mm hmm.

[00:08:09] **Suzanne Thoma:** And that thing happened mid seventies, this quote. And, uh, Zug was a very, uh, conservative at that time. Yeah. And Switzerland and the world was a completely different spot. And yes, uh, does somebody who is going to be a housewife have to do matura? And should the society invest so much money for, to bring somebody to have a matura?

And that was the background, uh, of this question of the teacher. Why send a woman to gymnasium if she's going to do other things in life later?

[00:08:43] **Susan Kish:** Can you define what a gymnasium and a matura is?

[00:08:45] **Suzanne Thoma:** Um, it's probably what you would call in the UK A levels. It's the more demanding part of middle school education, which when you pass the final exam, you are allowed to study in a Swiss university.

[00:08:59] **Susan Kish:** Thank you. Hearing this conversation around your older sister. I can only imagine that must have pissed you off, as the expression goes. Or somehow it made an impression, because it does appear that you, you made some decisions when you heard that.

[00:09:15] **Suzanne Thoma:** Well, the good thing is that my parents were very upset. My parents did not accept that at all. They were very angry at that teacher. And I followed the dinner conversation. I was seven years younger, so I was not yet politicized in any way. But it stuck. It was not okay, what the teacher said, very strongly not in my family.

I had more of this topic later on, maybe when I was 16, 17, 18, in my generation, we had very few role models. Also at ETH, I actually had one female assist, not even assistant professor, something below the assistant professor. Otherwise, I never had a woman teaching something, uh, anything.

[00:09:59] **Susan Kish:** Oh my gosh.

[00:10:01] **Suzanne Thoma:** That was more the thing. Why would you do it differently than everybody else is doing in your environment? There was nobody to follow in that sense.

[00:10:12] **Susan Kish:** And what made you choose going to the ETH amongst the various Swiss universities?

[00:10:16] **Suzanne Thoma:** Well, I did have a certain interest in chemistry.

[00:10:19] **Susan Kish:** Uh huh.

[00:10:20] **Suzanne Thoma:** As a matter of fact, I knew already then that having an engineering degree, or at least a very technical education, also science, is a very good base for future career development. I did not fall into the trap that some people do, that they think if you have do engineering or science, you will definitely end up be it in a laboratory or in a construction site. I knew that being an engineer was a much, much broader portfolio that you were preparing yourself for.

[00:10:55] **Susan Kish:** So that in other words, it gave you a foundation from which you could make some choices. Have options.

[00:11:03] **Suzanne Thoma:** The choice that I basically make was a study in economics or in engineering. And to be quite open, and it is still true, You can always learn later on in life about economics and business administration and all of these things, but to really study engineering at a very good school, that's a once in a life chance.

[00:11:27] **Susan Kish:** Well that sounds very astute as a decision when you're whatever, 17? How old?

[00:11:33] **Suzanne Thoma:** A bit older here until we eight, eight, 19, 19 when the final decision came.

[00:11:39] **Susan Kish:** And what caused you to decide to actually pursue it to the next degree, to get the doctorate?

[00:11:44] **Suzanne Thoma:** That was probably me being very much in the ETH atmosphere and environment. And at that time, you normally did do a PhD. Particularly, I'm a chemical engineer, so I'm linked to the chemical industry. I also

knew at that time, we are speaking about late 80s, early 90s, that with a PhD going into the chemical industry, I would probably be taken more seriously than without.

[00:12:16] **Susan Kish:** In other words, that the doctor title was going to be important.

[00:12:20] **Suzanne Thoma:** Yes, it, that is true for, was true for men, but definitely for women at that time.

[00:12:25] **Susan Kish:** Did your experience at ETH, how did it prepare you for what you're doing now? You spoke about engineering as an important part, but going to university is more than just what you study usually.

[00:12:38] **Suzanne Thoma:** Very much so. From an intellectual point of view, it taught me a certain way to think. And it's difficult to describe, but it certainly still serves me. I have developed a certain capacity to find out amongst much data, what could be of the essence. What is the what,

[00:13:01] **Susan Kish:** The signal versus the noise.

[00:13:03] **Suzanne Thoma:** The signal versus the noise. Yes, exactly. And that I trained, I think, at ETH. And that is why I can get along very well with the engineers because they sometimes bore me with too much detail. So I still can ask the question back to the signal.

[00:13:19] **Susan Kish:** Which is a super good skill. And you mentioned that there weren't really many role models. Certainly by gender, but who were your heroes? Who were the ones you looked up to? Was it captains of industry? Was it the guys who won the Nobel prizes? Astronauts? Who were the ones who inspired you?

[00:13:38] **Suzanne Thoma:** It's good that you mentioned astronauts. There was Sally Ride. She was one of the first female astronauts. I remember I had a poster of her in my room. Then of course, when I was 17, Margaret Thatcher became prime minister of Britain. And I remember, I was then, of course, still in school, how the German teacher told us that, ah, this woman is anyway only going to be in office for six months. And she lasted a bit longer. And what fascinated me in her is that she came from relatively humble origins. She was not a queen. She was not from a famous family. She really had to make her way through the ranks at even an earlier time than I had. So I liked, uh, like that a lot.

[00:14:28] **Susan Kish:** You have kids, you have two daughters. Having kids and a career in Switzerland, there was a very small number of women who were doing that. How did you manage that?

[00:14:41] **Suzanne Thoma:** I normally jokingly say that I didn't know that it was impossible. So I just did it. And I was never totally Swiss focused. So I also looked to the United States and to other countries, France. And there, what I did is much more common there. Then in Switzerland still, still is. I accepted that childcare was

extremely expensive and that basically my first nice salary after paying taxes and childcare more or less disappeared from a very nice salary to almost nothing more or less zero. That was something that was not so easy to accept. Yeah, because everybody got some money from that except me. But I was thankfully aware enough that this was only so until the children grow a little bit older.

[00:15:29] **Susan Kish:** I empathize with that. So let's go back to Sulzer. You mentioned the markets it's working in, energy security, energy transition, natural resources, process industries. Are there specific opportunities that make you very excited within those different markets?

[00:15:47] **Suzanne Thoma:** Well, these are markets which are growing structurally, clearly. If you think of energy, we also still have a growing world population. And we also have, uh, still emerging markets or countries where people are moving into middle classes, which were before poor. And that means they will consume more energy and also more, uh, electricity.

So we have to assure the supply of this electricity and at the same time, we must find a way to do this in a, in a cleaner way. And with Sulzer, what's the connection with Sulzer? Sulzer on the one hand is of course enabling still in the area of conventional energy production with our pumps. At the same time, we do a lot of maintenance of existing energy infrastructure.

It's actually about one third of our business is not only energy, but infrastructure service and maintenance and refitting. And that is a very green thing to do, because if you have an old energy infrastructure where you still need the energy, but then you can revamp it, you can increase its energy efficiency, and you can make it cleaner. That's quite the contribution to a cleaner energy system in the time where we still transition to a completely new energy system.

[00:17:11] **Susan Kish:** And I'm sure the oil and gas sector, for example, is very interested in that because it reduces their scope. Is it scope one or scope two?

[00:17:20] **Suzanne Thoma:** You are from a, from oil and gas industry, it's scope one or scope two. And yes, they are very interested. It's also a cost issue for them. And they are definitely interested in becoming cleaner themselves.

[00:17:33] **Susan Kish:** ETH. It sounds like it was an important part of your life, gave you a real great foundation on it, and you're still very engaged with ETH. You're on the ETH Global Advisory Board. You won the ETH Zurich Chemical Engineering Medal in 2016, and you were an honorary board member back in 2021. Talk about the role that ETH plays in your life and your career today.

[00:18:00] **Suzanne Thoma:** First, I would like to say that I am incredibly proud that we have such an engineering school in Switzerland. I mean, we are 0.1 percent of the world population. We also forget that sometimes in Switzerland, we're very small. We're not even as much as a large city. And we have two such great schools in, in Switzerland, in Lausanne and in, in Zurich.

So that makes me proud also as a Swiss. Secondly, the school has played a very good role in my life. Good doesn't mean easy. I have had difficult times at ETH, very clearly. But now I see it as such an important building block of what I did professionally and which made me happy professionally. It's not only about being successful, it's also about being happy. However, that's not a contradiction.

I try to help the school where they think they can need some assistance from me, then I, I try to do that. And I do it proudly, be it little things or bigger things.

[00:19:02] **Susan Kish:** If you were to meet a young woman who was thinking about a career and having to make some choices, what would be your top pieces of advice? You would provide. Would you counsel someone to continue along a path that you followed?

[00:19:17] **Suzanne Thoma:** I would counsel somebody on really considering engineering or science study, and I would definitely counsel them not to be discouraged only because she may be not have absolute top marks. I didn't have absolute top marks in physics and math and chemistry. Not bad, but not top. And I would encourage particularly young women to look at a career that allows for evolution and for increasing area of competence so that you can grow.

I would also encourage counsel them to look for an education that will allow you financially to provide for yourself and for family and to give you some, a base that is likely to be comfortable. We sometimes forget that in rich countries, uh, but this is also important for happiness and wellbeing. I would tell young people, let yourself be challenged and it's going to make you happy.

[00:20:23] **Susan Kish:** That's great. I'd like to close with some questions we always ask our guests and one of them refers to earlier in our conversation when you were young. What did you originally want to be when you grew up?

[00:20:36] **Suzanne Thoma:** That went through phases, but at the end of the day I wanted to be something, somewhere in industry.

[00:20:45] **Susan Kish:** And when you say industry you mean companies that make stuff

[00:20:49] **Suzanne Thoma:** Company that makes stuff that is important for people.

[00:20:53] **Susan Kish:** What are you curious about today? What are you learning about today?

[00:20:56] **Suzanne Thoma:** Oh, I, every day I was just joking with a colleague that it keeps our brains young, that we have to learn all the time. I learn a little bit about Sulzer's technology. I learn a lot about our customers. I still learn about how to manage a company. It's an evolution. It also changes. It stays the same and it

changes at the same time. So that's a great privilege that I have that I absolutely keep learning every day.

[00:21:23] **Susan Kish:** And what are the books that you're reading? What are the books in your bedside table or in your Kindle that you read in those few minutes while you're waiting in line or going to sleep?

[00:21:35] **Suzanne Thoma:** I always read before I go to sleep. And what I do read right now is a thick book. Um, actually, I don't know the author. The name is Why Nations Fail. And it is starting with the Romans, actually, even, but it really starts with the Roman up to today. What are the boundary conditions that you have to have mainly politically and with the institutions that allow countries to be successful and successful is measured by, uh, creating a wealth and wellbeing and freedom for the entire population. Very interesting book. It seems to really be a red thread in the sense of some clear essential elements that have to be there irrespective of which continent, which temperature in the country, when it happened 2000 years ago or now.

[00:22:40] **Susan Kish:** It is a very timely topic, whether you're reading political thrillers or historical analysis. And finally, what is your favorite place to go in Zurich or at the ETH? It could be a coffee shop, it could be a, wherever.

[00:22:55] **Suzanne Thoma:** Actually, I like to be in the main building. There in the entry hall. This hall, when you come in, it is magnificent. And I have so many memories there. And I get to go there from time to time when I visit ETH. It's normally there. So I enjoy that tremendously.

[00:23:12] **Susan Kish:** With the cupola and the big pillars.

[00:23:14] **Suzanne Thoma:** And it's like going to a movie of your own past. So it's nice.

[00:23:18] **Susan Kish:** That's a great expression. Thank you Suzanne, thank you so much for your time. This has been a wonderful conversation. Really appreciate it.

[00:23:26] **Suzanne Thoma:** You're most welcome. Thank you, Susan.

[00:23:28] **Susan Kish:** I'm Susan Kish, host of the We Are ETH series, telling the story, the alumni and friends of the ETH Zurich, the Swiss Federal Institute of Technology based in Zurich.

ETH regularly ranks amongst the top universities of the world in terms of its cutting edge research, its science, and its people. The people who were there, the people who are there, and the people who will be there. Please subscribe to this podcast wherever you listen and give us a good rating or Apple or YouTube or Spotify if you enjoyed today's podcast.

I'd like to thank our producers at ETH Alumni and Ellie Media, and thank you, our listeners, for joining us today.

The book, mentioned in this episode:

- [Why Nations Fail](#): The Origins of Power, Prosperity, and Poverty (Daron Acemoglu, James A. Robinson)