

## **Siemens Grid Software Podcast <de>coding the future of energy – Episode 5: The sustain<able> smart grid with Lubomila Jordanova and Judith Wiese**

**Speaker 1** [00:00:05] Mom, can I ask you something?

**Speaker 2** [00:00:08] Sure. What's up?

**Speaker 1** [00:00:10] We got this stupid topic for a paper. It's called "Our parents at our age."

**Speaker 2** [00:00:14] Our parents at our age? That sounds interesting.

**Speaker 1** [00:00:18] I need your help. How should I know what you did when you were 15? There's no book about it.

**Speaker 2** [00:00:23] Oh, dear. Well, I'd have to think about that myself for a minute. Hold on. At 15. That's 25 years ago.

**Speaker 1** [00:00:31] That's a long time.

**Speaker 2** [00:00:33] Thanks for pointing that out. So, around 2020. Oh, I know. I can tell you what I did then.

**Speaker 1** [00:00:41] What?

**Speaker 2** [00:00:42] Have you ever heard about the climate marches?

**Speaker 1** [00:00:45] Seems old school.

**Speaker 2** [00:00:46] Maybe. Well, they originated as a student movement. The students went on strike. They didn't even attend their classes. They thought that the adults — that is, your grandparents — were doing too little to mitigate climate change. You know, too little for the future.

**Speaker 1** [00:01:03] No shit. That's a tough one. And you were part of that?

**Speaker 2** [00:01:07] Well, not from the very beginning, but at some point, I went along to a demonstration and also took part in the strikes.

**Speaker 1** [00:01:13] And why? I mean, do you think it was cool or something?

**Speaker 2** [00:01:17] Well, it wasn't about that. At the time, the consequences of climate change could no longer be ignored. There were floods, much hotter summers, droughts, and for a while, very little happened. I remember that I was really worried about my future and that we felt really helpless. At the same time, we were also very angry at the older generation.

**Speaker 1** [00:01:38] And what did grandpa and grandma say about it?

**Speaker 2** [00:01:41] Well, they supported me. They were actually very forward-thinking and they cared about sustainability themselves. Grandpa had just bought an electric car

and we had solar panels on the roof and were thinking about installing our own charging point in the garage.

**Speaker 1** [00:01:55] Crazy. And what happened next?

**Speaker 2** [00:01:58] Well, there were more and more protests, and increasingly urgent forms of protest. At the same time, the effects were becoming more and more obvious, so politicians were finally forced to act.

**Speaker 1** [00:02:09] What kind of changes were made then?

**Speaker 2** [00:02:11] Well, for example, all electricity production was changed. There was no more coal and no more gas, only renewable energy from millions of small solar or wind power plants. And people also took more personal care to keep their carbon footprints as low as possible: eating less meat, less long-distance travel and things like that. At some point, everyone understood that it was about preserving the quality of life on our planet and not just about a different lifestyle.

**Speaker 1** [00:02:39] So that's what you did. You saved the planet.

**Speaker 2** [00:02:42] No, but I may have contributed a little bit. Who knows if we would really be living in a sustainable, climate neutral way today, or if we would have come to grips with the effects of climate change to some extent if it hadn't been for those protests.

**Speaker 1** [00:02:56] Hmm. Well, anyway, thanks for the help with my paper. And for saving the Earth. Sort of.

**Gerard** [00:03:05] What you've listened to is our utopia. The best-case scenario, so to say, a potential future world of ideal collaboration within the energy sector. In all of our podcast episodes, we kick off with a short introduction to set the scene on what a bright future could look like, and then we dive into a discussion on how to get there. Welcome to "Decoding the Future of Energy," a Siemens Accelerator podcast. My name is Gerard Reid. I work in the finance industry with a focus on both the energy transition and the digital energy revolution. As your podcast host, I want to explore a range of facets on how we can develop a more or even fully sustainable energy world. Today's episode is all about sustainability. For this topic, we have two amazing guests: Judith Wiese, Chief People and Sustainability Officer at Siemens and Lubomila Jordanova, Co-Founder and CEO of Plan A. Lubomila, Judith — I need your help. I come from the finance world, and I have spent a large part of the last 15 years in the area of sustainability, and I seem to get more and more confused as the years go on. So can you help me and just talk to me a little bit about, you know, what sustainability is, really, because I'm really still at this point in time, not clear.

**Lubomila** [00:04:31] Sustainability, in my view, is the most natural way of navigating a system, a process, an economic model. Historically, we've not taken this approach, which has been predominantly focused on one particular KPI, but now we're trying to reestablish and recalibrate the way we value the different products, resources that we have. A sustainable mindset is one that doesn't exhaust too much, doesn't take too much; it's one that is perfectly aligned to exactly what you need and what other stakeholders need.

**Lubomila** [00:05:14] I always explain it to the stakeholders that we engage with that historically, we built an economic system that has only focused on one single KPI, and

that's GDP. Today, we're adding a few more KPIs, and they're related to creating a true understanding and true vision for what the actual cost and value is hidden behind every single action that we take as individuals and as businesses. So yes, Gerard, it will take a few more KPIs, but that's only to compensate for what we missed, maybe, on assessing in the past.

**Gerard** [00:05:47] And Judith, you have to go and actually take all these KPIs and report them to investors and stakeholders, so how do you do it?

**Judith** [00:05:54] Yeah, I mean, that's a very good question. We have set ourselves a target system. We talk about degree as our framework for sustainability, along the dimensions of planetary as much as people and governance, and there are target systems that we've set ourselves. But of course, the vast number of KPIs that also the regulatory environment is now demanding from companies is hugely increasing. And I would say to a large extent rightly so, because I think the world needs transparency, I think the world needs standards. But it's also fair to say that these standards are still evolving and our customers have a very vested interest in understanding how we can help them. I think this is what we really need to make sure that we actually have comparability between companies and here it is really important that the world converges, and the sooner that happens, the better, I think.

**Gerard** [00:07:10] And can I ask, how do you think that happens?

**Judith** [00:07:12] We see efforts that various governments are undertaking, but of course, if 200 countries around the world come up with their very own standards, that's not very helpful. We see larger regions like the EU coming up with things like the EU taxonomy. But again, I think my big hope is that we really have a way of converging through standard-setting boards like the ISB that will help the world in coming to that convergence sooner rather than later. That would be hugely important.

**Lubomila** [00:07:40] I think it's the usual recalibration process that we always go through when we even look into traditional innovation cycles. You always have a little bit of a battlefield in the beginning where everyone comes up with their own way of approaching the problem solving behind a significant issue. But then, all of a sudden, everything starts merging into one. I fully agree with Judith that we need to align. At the moment, we're still at the stage where there's a lot of different languages being spoken when we talk about, let's say, biodiversity KPIs or even KPIs related to assessing the financial health of a financial institution, but from this environmental perspective, but this recalibration has kicked off. We see now bodies that historically have competed with one another to start not only announcing joint initiatives, but also to eliminate some of their KPIs so that they give prominence to others. And I only admire the efforts that some governments are making, especially the EU. But we know that we're not there yet because there's still a lot of work to be done to make sure that the KPIs also speak the business language, not only the governmental language, and then also a more multinational perspective.

**Judith** [00:08:50] And you mentioned the finance world several times, Gerard, and if we're fair, it took probably, you know, a fair amount of a decade or maybe even two to develop financial standards, and we're now trying to shortcut this for the sustainability world as much as we can. But the truth of the matter is that I think the intention is there, the action is following, but it will simply take a few iterations until we get to something that is truly meaningful for different industries as well and makes really sense for the world. So, I think we will just need to work through this in the coming years. And as much as people do this

with the right mindset and the right intention, we will get there, but it might just be a little bit bumpy in the meantime, is my hunch.

**Gerard** [00:09:31] Can I ask, again, how do you sort of, like, from a Siemens perspective, how do you decide what the gold standard in sustainability is? And I ask that because if you don't do that, you know, you're going to be labeled with greenwashing, etc., etc., etc. And even you might make a mistake and still get hit with greenwashing. But how do you do this? And again, I just say that because for me, the whole sustainability area is just a minefield of completely different standards and bodies. And so, it's not like the financial world where, you know, you've got US GAAP and I've got IFRS and that's it. And as an analyst I go, "Oh, that's great, I have that." But I don't have that in sustainability, right?

**Judith** [00:10:07] Well, I mean, we do have some things that are quite reliable. We have the GRI that has started to set standards early on, and many large corporations are following that to a certain extent. We have the Science Based Targets initiative that I think is highly reputable for all the right reasons in terms of how you calculate, scope one, two and three emissions. I think this is something that, obviously, we're working with as well. Where it gets more tricky is how do you really look at the portfolio, what that portfolio does? And this is where I think that most companies really have a vested interest in Siemens as well, that we're not being accused in any shape or form of setting our own standards and therefore being vulnerable to accusations of greenwashing. Therefore, we've been quite conservative about how we've been looking at this. But the truth of the matter is that we think that the vast majority of our portfolio is contributing toward sustainable outcomes, as it does also other things. Efficiency overall, speed overall. But sustainability outcomes are a large part of what you do when you digitalize and electrify, as we do, from our technology portfolio or offer, you know, transport on rails. So, a vast majority of that is contributing towards. But a lot of the enabling technology, for instance, like digitalization, like digital twins is, for instance, not acknowledged by the EU taxonomy these days. So therefore, we're being conservative in how we look at the estimation of our own portfolio so that... But we believe that we have a lot to contribute with the portfolio that we have today. So, it's more a question of how do you talk about this, and to whom, you know?.

**Lubomila** [00:11:50] An important distinction to make is always, there's certain standards that are gathering KPIs to allow for the understanding of the status quo within a business, there's others that are forward-looking that allow for a business to see themselves improving down the line. The examples that were given now are incredibly important. Without one-two-eight, which is the GHG protocol as well, which is a framework for assessing emission accounting, when we look into these two perspectives, what we always advise our clients that obviously have a big agenda of implementing net-zero targets, companies within the banking and fashion sector, is that the best truth that you can align yourself to is the analysis of the status quo and also the tangible pathway that you're going to take that will be your net-zero journey and the steps that you take. All the other reports that you need to prepare because you have to be compliant are an important, of course, element to the job of sustainability or ESG or impact team. But the ultimate goal for any business should be really taking action. So, these are the two realities that we need to think about, and this is also, I would say, and Judith, maybe you can confirm, the usual battlefields that you need to combine when you're preparing your sustainability activities.

**Judith** [00:13:08] No, absolutely. And look, I mean, we've been reporting against sustainability KPIs for well over a decade, probably 15 years by now. And we have upped

our own level of ambitions. Like I said, the world is demanding more of that, and rightly so. And for us, this is part of doing good business and also doing good business governance. We are increasingly talking in the boards — we have a sustainability board, we discuss it in our managing board, and we increasingly discuss these things with our supervisory board as well. So, it's really become part of hardwiring sustainability in every good business process that we've run. And I think this is how you make a difference in the end. And you said it, Lubomila, at the end of the day, the time of declarations is long over, and businesses have credibly shifted into taking action. And what we're now finding is that demands quite a bit in various aspects, and that goes to the reporting side as much as it goes into the product design side. And, you know, well beyond what companies do in their own scope, one and two. And this is important, and this is where we're right at with many good corporations out there, big and small, that really want to make a contribution. And, again, as Siemens, we are in the fortunate position that we sit on a portfolio of technology that is helpful. We're not one of the industries that are, by any stretch of the imagination, heavy and big polluters. So, that is our huge advantage. We have homework to do ourselves, no doubt about it, but we actually have a portfolio of technologies that is there to help. And if that technology got applied and deployed more quickly — as much as we also see innovation in this field, it really skyrockets in the very last few years — the world will be better off for us. And this is where the financial markets, then again, to your point, Gerard, play a huge role because the world is also not short of capital. It's the question of how that gets deployed and where it gets deployed and how quickly.

**Gerard** [00:15:10] Before we started this podcast, I wrote down two words. One was “action,” which both of you just keep mentioning, almost in every second sentence. The second word is “proactive,” and I'd love to hear your thoughts on that. I believe companies should be proactive in sustainability, but I'd love to hear whether you think that's wrong, or whether you should be following, or what should companies be doing, right?

**Lubomila** [00:15:34] I had an interesting discussion yesterday with one of the largest banks in the world. One of their board members said, “We've had enough of promises. The only thing that we're paying attention and investing in is action.” I think we had this sequence of years where there was a lot of net-zero targets being announced, a lot of companies committing to investments in offsetting. Now we've turned the tides on offsetting, but these commitments have to be acted upon, and they're now translating themselves into action plans, into investment plans, because how many promises can you make? You cannot adjust your net-zero targets. You need to make continuous effort to demonstrate that these milestones that are part of this net-zero journey are being implemented. I fully agree with you, Gerard, that productivity and being at the forefront of decision making is the only way for a business to remain competitive. What we usually say to the businesses that we work with is, they have two options. One option is that they set the scene for what sustainability will mean within their own industry, or they follow all the others that would lead the way, and maybe are not always going to make the most comfortable, for the other side, decisions. I truly believe, and Siemens is a fantastic example of that, that being a pioneer is maybe uncomfortable in the beginning, but definitely a more rewarding position, because you have the possibility to engage your stakeholders like your suppliers and also other companies within your field, to think about sustainability at scale. And also, you can do this with promoting technology that you have a deep understanding of. We've seen this, and I'll use the example of fashion, which I think is quite prominent because of all the allegations, and also all the legislation that came in the last few months and years. There, actually, at the moment, you don't have the choice but to really show the implemented projects because you're a laggard if it's only about announcing yet another target.

**Judith** [00:17:32] Yeah, and I mean, a company like ours with also our capabilities needs to lead the way in many, many regards. I think sometimes it's a question of size, whether you're a, hopefully, a fast follower, or whether you can actually pave the way. I think a company like ours needs to pave the way and that's what we've been doing, and we've been doing that in bigger and smaller ways. We've got sites who've set themselves very ambitious targets, and this goes to older sites as well as to ones that we've built more recently — Greenfield. There are examples of sites, in the UK, for example, 50 years old — Congleton. They are basically eight years ahead of their carbon neutral plan, got there now, partly through our technology and investments into what we offer our customers as well. So therefore, we're in a way also drinking our own champagne on some of the things that we need to do. But, we also see, and I mentioned that earlier as well, we see a lot of innovation, we see a lot of startups going into this area as well. So, the great news is, there is new technology developing. You know, take all the carbon capture that we're also looking into together with our financial services arm, how we can also start funding this. There's new business models evolving. Some of them have been around for a while but are really now starting to scale. If you think about energy as a service, building efficiency as a service, a lot of the things that now allow people to take less investment in CapEx because that is more a shared burden or is something that, in this case, also Siemens would offer their customers so that you have much less risk on your side as a customer, to be able to do that. And again, that helps deploy the right technology on a more rapid basis and redistributes the risk of investment to where companies and systems, ecosystems can shoulder that. So, we see some really encouraging ways of what leadership might look like.

**Lubomila** [00:19:23] And what's most exciting, I think, seeing it from another perspective within the same field is that, actually, for the first time in the history of business, in my view, and from what I know from history, we're starting to redefine what competition means because you see how in the sustainability field, different stakeholders such as the startups, such as the corporates, but also policymakers are starting to work together to implement these solutions at scale, and everyone's knowhow and skill sets that bring a different perspective to the table are being maximized. The only way we can think about being proactive, going back to your question, Gerard, is really of understanding the value of collaboration because the climate crisis and also just the sustainability challenge ahead of our economy and financial systems is really one of collaboration. It's about the engagement of these stakeholders that are sitting within scope 3, but it's also, with regards to, using, again, the financial services as an example, using this might that is sitting within financial institutions to transition this whole economy. No one single stakeholder will solve this, and being proactive means really engaging all of them.

**Gerard** [00:20:33] And by the way, that also leads to my next point, which is actually the key of all of that is data, which actually goes back to what you said earlier on, Judith, at the beginning of the conversation, you used the word digitalization, right? It's big data, it's digitalization. I suppose my question to you is, one, how important do you see digitalization as a part of sustainability? And then I suppose, then, the second question to that would be, assuming I'm right in my assumption, how do you speed it up?

**Judith** [00:21:01] Yeah, maybe I'll give it a start and then, Lubomila, please feel free to chip in. I think digitalization helps in a number of ways. I mean, to your point, Gerard, it is a means of providing data where previously data wasn't being able to be made transparent or gathered. And this is where we find the sweet spot at Siemens between providing hardware and software and making devices intelligent, getting connectivity on devices and

providing data. We use blockchain technology to help customers track product carbon footprint data in real time. But of course, digitalization also allows you to actually design and develop things for a certain outcome without ever touching something in the real world first. And we know that, for instance, with product design, 80% of a product carbon footprint is decided in its design phase. If you can use something like digital twin technology to say, you know, how do I not only optimize for costs, but for sustainable outcomes, for circularity. We today have the opportunity to map entire large production processes and you can, on the digital twin, basically play around with how you might change processes, how you might change product data for certain outcomes. So, everything that we have already learned in recent years, maybe for different outcomes, maybe more from a cost efficiency perspective, you know, we can actually now equally model and use from a sustainability perspective. And this also goes for grid software, for example. So, the way of how you gather data and steer grids, and particularly micro-grids, is a huge enabler of being able to then feed in more renewable energy into systems and making those more stable, more independent. So, we see that in industrial processes, but we also see that in large building complexes, as an example, in entire neighborhoods on the grid. And so therefore, I think digitalization software has anything from making data visible to really designing for outcomes that are sustainable, either by reducing carbon footprint, and/or circularity dematerialization as we speak.

**Lubomila** [00:23:09] Technology serves a lot of benefits to the sustainability transformation that the economy needs to go through, but with the caveat that it is implemented at scale. I think sometimes, we speak about a lot of different innovation, and all the examples that were just given are fundamental to our possibility to become a sustainable and stable, also, economic, but also, just, in general, innovation system going forward that addresses large-scale issues like climate change. But, the truth is that the status quo at the moment is that sustainable innovation is really not as well supported as other innovation that might have been just more historically, earlier, in play and in discussion. And I think this is a really big fundamental learning that we need to gather, as all the different types of stakeholders that we not only represent here, but beyond: policymakers, finance representatives, and also, of course, corporates, because we can come up with as many innovation ideas, solutions, so many of them are sitting in scientific papers as well. But they cannot solve our problems until we understand that we need to collaborate and also to implement at scale these ideas, because at the moment, many of them are in prototype phase.

**Judith** [00:24:26] Yeah. And, and, if I may, Lubomila, I think a lot of them already exist. So, I think that there is

**Lubomila** [00:24:30] Absolutely.

**Judith** [00:24:31] also a lot of technology that exists and that simply needs to be put forward for a different use case now. And that use case is more and more in demand. I mean, we have many clients, consumer-facing companies, where this becomes absolutely critical in the eyes of their consumers as well, to step change there. So, when we talk to our big global accounts these days, it is not just a question of cost efficiency. Speed is one of them, but sustainable outcomes as well. So, these things are in more demand, and a huge starting point would be to take the technology that exists already today and put it into use whilst we're developing technology that will be needed to get us into 2050. But I actually believe we have time to do things in parallel, to deploy what's already there at a larger scale, to your point, Lubomila, but then also make sure that in this particular period

of time we also already get onto the next wave of what is needed to get us into 2050 safely.

**Gerard** [00:25:33] Lubomila, the word you keep used is cooperation, and I agree totally with you on this, the need for this. But there's something that blocks with that, and that is people's concern about privacy in and around this data, and that sort of, whether that be in smart meters, or in, in whatever it is. We see this all the time. How do you deal with that conflict?

**Lubomila** [00:25:54] I'll say something wildly unpopular, given I live in Germany and I know how much privacy is highly valued here, is that we need to move away from the reality that data needs to be something hidden for topics like the ones that you just mentioned, Gerard. We are not at the state of the development of the later repercussions of climate change where we can allow ourselves to focus on hiding away data that is crucial for larger scale understanding of how we can tackle these issues. And there's multiple ways in which technology can be utilized so that the privacy of the person is hidden, but the data is shared. So, moving away from this general idea, my data should stay with me, but more, let me give the data, just make sure my identity goes away. How we tackle it within Plan A is to essentially add the layer for the assessment, this is where our tool comes in, but the data stays within the realm of ownership with our clients because we do understand that, down the line, maybe not today, but for many companies like the large corporates that we work with, this is data that could put them in potentially competitive challenges, in jeopardy. I fully understand the argument that is a little bit outdated in the context of climate, only adding the layer that we need to understand the context in which this data in particular is being used. That is not a use that is just general and it's for marketing optimization. It really is for allowing for humanity to move forward into a model where all of these issues that we need to tackle that are now in the thousands for every single different geography are also particularly, and in a tailored manner, addressed. I truly believe that we're going to move away from this mentality, and I work on a daily basis for this to happen.

**Gerard** [00:27:43] Judith, your thoughts?

**Judith** [00:27:45] Yeah, I couldn't agree more with what you've just said, Lubomila, and I think we really need to have a close look at the use cases and what needs to be protected and where can we actually be a bit more generous, also in Germany with how we deal with data. If I think about product data, for example, because we now have blockchain technology that allows to not only simulate what carbon footprint comes with a product, but really use actual data, and if you want to use that across the value chain, which means that you're also handing data from one legal entity to another, you need to make sure that this is appropriately protected as well. But there is technology like blockchain, that allows you to do that already today. It doesn't involve personal data, it has more to do with, you know, you're dealing with different companies, how does that make its way through the value chain? But the metering is hugely important, and if we can solve that, and, you know, I also have not only the sustainability but also the people hat on for Siemens, of course, we also want to use data for the benefit of running the business well, but also people experiencing Siemens well. And we know that a lot is possible if you anonymize in the right way, because then that still allows you to use the data, you just don't make it traceable back to a person. And metering is hugely important as the new world allows consumers and producers to virtually become the same. And more people are participating in the energy production as well as in the energy consumption. So, this is one of those

areas that, if we find good solutions for them, they will again unlock possibilities at scale that maybe don't exist to that degree today.

**Gerard** [00:29:24] The other thing that I just wanted to add to the conversation, really, is in and around economics. So, if I look back, and you might agree with me, but I'm going to be provocative and say that sustainability was a nice-to-have in the past; it's now become a must-have, because if companies don't reduce their energy costs and their raw material costs, some of them are in real financial difficulties. Do you see the same, and does that really accelerate this sustainability movement in the next years?

**Lubomila** [00:29:53] There's been a convergence of issues that led to the state that we have at the moment. The COVID crisis really emphasized on the need for more stability in our supply chains, which clearly were heavily dependent on products coming from all over the world, which is not always the most sustainable option. Of course, we have at the moment the energy crisis, and, at the same time, the activism also increased significantly with movements like Fridays for Future. Alongside, I would confidently say, and Judith, I hope you'll agree with this, a corporate understanding of the value of sustainability in engagement of employees, engagement of new prospects, but also the transparency towards clients who, at the end of the day, have also the possibility to go to another option that might not offer the same quality, but would offer alignment to values. All of these different elements have led to an understanding that sustainability is a must-have for any business that wants to stay competitive, for any individual that wants to be aligned to their values within the company in which they work. And with this in mind, I feel we are now having a domino effect that is a little bit of a catch-22 because one stakeholder is doing one thing, another is doing... But then, probably, there was a... I'm using a lot of metaphors, a chicken egg kind of engagement where you would have one side of the market contributing to the other, thinking about it, but really, creating a perpetual cycle of engagement. And I think it's just an effect that we'll continue seeing as also, unfortunately, the climate change crisis further develops.

**Judith** [00:31:32] Yeah, maybe I'll try a slightly different angle to build on what you've just said, Lubomila. At the end of the day, you started with, you're a finance guy, Gerard, by training. And I said the world is not short of money. So, it's a question of what would make a shift in investment actually viable? And why did the capital markets become interested? Because they found that the cost of climate crisis is higher than actually the cost of doing something about it. So, I think this is a huge lever why it got the attention off the capital markets. I think as the world has developed and moved, they are now discovering how much business opportunity there is in tackling the world's biggest problems. And that's why more and more money is also going into innovation and that is very good and healthy. Now my hope is that the energy crisis as such that we're experiencing, particularly in Europe, is now also exposing more the issues of externalities, which have never been priced into the cost of energy fairly, if you like. And running an operation that is cost-saving is also running an operation that is energy-saving. And, you know, the 37 gigatons of CO2 emissions that the world had last year, I mean, they are largely energy-related and how energy is consumed and where it originates. So therefore, I'm hoping that the crisis that we experience today is actually something that will create another tipping point from an economics perspective, also, into something that makes the world more sustainable. And like Lubomila said, we see this from our people as well who demand it. We see it from larger society that demands it. If you want to be an attractive employer, you know, you need to be seen as doing something. And if you're a consumer goods company or a car manufacturer, etc., etc., you know, you experience a lot of shifts and dramatic shifts also in the buying behavior, which, again, means that sustainability becomes both a threshold for

doing business, a license to be in business in the future, as much as it is an opportunity. So, there is more and more an economic case for this that should accelerate things drastically. And I think we're already experiencing that.

**Gerard** [00:33:51] Lubomila, do you want to add something to that?

**Lubomila** [00:33:53] No, I fully agree. And I just feel like there's a necessity for any stakeholder that might be listening to think deeply if they fully grasp the magnitude of the change that is ahead of us, and that has happened in the last few years. This is not a topic that will fade away in a fashionable manner. It is a topic that is now reestablishing the way we think about the economy, about society, about the role of stakeholders in defining where the future is, essentially, calibrated. And it is exciting when you're part of the practitioners of the work on a daily basis within the field, and I hope it becomes exciting for those that are just tapping into the topic at this point.

**Judith** [00:34:35] I mentioned it earlier as well, I think for many companies or many customers of ours as well, be they, you know, university campuses or large industrial customers, the question is always, you know, where do you invest your capital and how much capital do you have to invest yourself versus somebody helping you with that? So, therefore, business models, new business models, like anything, software as a service, energy as a service, building efficiency as a service, you name it, or helping people access green deals in a different way is also something that will help make that transition go faster and at scale. And this is where, again, we see a lot of great movement happening. You know, we have some of that in our portfolio, but certainly other companies out there do as well. That should help with the economics of the change.

**Gerard** [00:35:23] I summarize it by saying it's a huge growth opportunity. Sustainability is a huge growth opportunity.

**Judith** [00:35:28] It is.

**Gerard** [00:35:29] Thank you very much.

**Lubomila** [00:35:30] Thank you.

**Judith** [00:35:31] Thank you.

**Gerard** [00:35:32] Sustainability is such a complex, huge and important topic that a summary of this episode is a challenge. But let me try. While GDP was the only relevant KPI for a long time, this is now outdated. To measure success going forward, we need to consider things like emissions that you avoid, how much of the portfolio is contributing to sustainable outcomes and so on. Judith put it rightly when she said: the world needs transparency. And some governments are already making great efforts to unify measurements and standards, but it's taking a long while, and maybe also longer than it should take in order for us to tackle climate change. We also talked about digitalization and big data, as well as the economic aspects and greenwashing, which is a huge concern for corporations and investors. Lubomila put it frankly, the best truth that you can align yourself to is the status quo and the steps that you need to take. The ultimate business goal is taking action. If you would like to learn more about everything we've talked about in this episode, I can recommend a visit to the Siemens grid software website at [siemens.com/grid-software](https://www.siemens.com/grid-software), as well as the Siemens Smart Infrastructure LinkedIn and Twitter channels. You can find all these links in the podcast description and if you have

any questions concerning today's topics, please feel free to reach out by email at [grid.software.si@siemens.com](mailto:grid.software.si@siemens.com).