

Episode 145 | Swisscom is building the AI-first telco (Mark Düsener)
Released July 21, 2026

Mark Düsener: [00:00] We have super experts that made Swisscom what Swisscom is, and that is what I call the hero culture.

Danielle Rios: [00:07] Yeah.

Mark Düsener: [00:08] I know certain names I would call if our network is down. Now, I tell them, "Your knowledge needs to be codified so everybody can access it."

Announcer: [00:24] This is "Telco in 20", a podcast that helps telco execs achieve a competitive advantage with AI and the public cloud. It is hosted by Danielle Rios, also known as DR. Today, we're talking to Mark Düsener, the chief technology and information officer at Swisscom.

Danielle Rios: [00:44] Hi, guys. I'm DR. Every telco CEO on earth is saying the same thing right now, "We're becoming an AI-first telco. AI is at the core of our strategy." Cool. Prove it, because AI is the easy part. The hard part is everything underneath. Your data lives in 200 systems, and customer means something different in every one. Your best engineers have 20 years of knowledge locked in their heads, and your processes assume humans handle all the exceptions.

[01:16] You can't sprinkle agents on top of this and call yourself AI-first. You have to rebuild from the ground up, data, systems, processes, roles, the whole company. Almost nobody has the stomach for it. Then there's Swisscom. At the start of this year, they kicked off one of the biggest transformation programs in their history, a rebuild of the software core behind their consumer and enterprise business.

[01:44] My guest today is Mark Düsener, Swisscom's CTIO. We talk about why standardization is the new differentiation, the data foundation you have to build before you deploy agents, and how to get your engineers to give up being the hero and turn their know-how into skills that AI can use. So let's take 20. Mark Düsener is the CTIO at Swisscom. Hi, Mark. Welcome to "Telco in 20".

Mark Düsener: [02:14] Hi, DR. Good to see you again, and I think it's been a little bit more than a year.

Danielle Rios: [02:18] It has been a little bit of time since we last met. And in AI time, it might as well have been a decade.

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Mark Düsener: [02:24] Yes.

Danielle Rios: [02:24] So much is happening all the time. And so, I think we're going to talk about a lot of things going on at Swisscom, which sounds super exciting. I know that the start of this year, Swisscom kicked off one of the biggest transformation projects in its history, a multiyear transformation program to modernize the software core behind your B2C and B2B businesses. And so, how is this project different than the traditional transformation?

Mark Düsener: [02:48] A lot, I would say.

Danielle Rios: [02:50] Yeah.

Mark Düsener: [02:50] First of all, we started that as a classical project driven by technology. And soon, we noticed this won't work. Whatever we do at transformation needs to be a business transformation, and business transformation means it's a transformation of technology. It's transformation of processes. It's reinventing how we do business. It's reinventing how we work. It's reinventing how we organize.

[03:16] So everything needs to be touched in order to get us into a different state. So the target of that is we want to be much more adaptable, much faster in creating new products, deploying new products, changing new products, and that relates to the speed that you just mentioned, the speed of innovation. We need to have organizations, people, and architectures that can cope with that.

Danielle Rios: [03:41] Yeah. And so, do you guys have goals or metrics? How are you guys measuring success?

Mark Düsener: [03:46] We do have goals, and yes, we measure. Otherwise, it's gut feeling, and I guess that can easily be blindfolded a bit.

Danielle Rios: [03:53] Yeah.

Mark Düsener: [03:53] So yes, it's about speed. How fast can we create a new product? Which is, today, months, if not a year, and shall be days or hours even. The other part is, how much standardized do we work? We believe that in order to be fast, you need to be composable, and you need to adhere to standards so that you don't intervene or interfere with your surrounding parties. If you change something and the others have to change them as well, it gets complex, and therefore gets slow.

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Danielle Rios: [04:23] Yeah.

Mark Düsener: [04:23] So these things we try to measure. What is the level of standardization that we adhere to? In the past, being nonstandard, being special was all about how we differentiate. My core belief is differentiation tomorrow as being first.

Danielle Rios: [04:37] Yeah. For my own organization, we talk about having the factory mentality. The factory is tooled to make that thing. You can't decide, "We're making Lexus cars today. Tomorrow, we're making Ferraris. The next day, we're making Teslas." You tool it to make the Lexus. And so, if you're constantly changing, that's cost. That's confusion. That's slowness. And so, you can achieve speed by maximizing and optimizing the process for the one car you're building for, but you're not getting all the customness and bespoke-ness. And so, you have to build an organization that agrees that that's right and understands the trade-offs.

Mark Düsener: [05:16] Yes.

Danielle Rios: [05:16] And so, your CEO, Christoph Aeschlimann, put out a LinkedIn post saying that telcos have to reinvent themselves at the core, not just at the edge. What did he mean by that? How is Swisscom reinventing themselves at the core?

Mark Düsener: [05:30] Just taking the obvious example of, how do we do transformation? How do we change ourselves into an AI-driven company? I see a lot of peers, competitors doing a lot of publicity, and we are agentic. We have this agentic use case. We have these things. We did where it's applicable and where it's useful. We do have chatbots to interact, our voicebots with our customers. So we do have certain cases out there.

Danielle Rios: [05:55] Yup.

Mark Düsener: [05:56] But the key focus of us is to lay the foundations, and foundations is, first of all, technology. So have one data layer so that data is accessible, because you can't be agentic without the brain, which is the data, and make sure that everything else that we have in architecture is accessible via APIs and MCP service. These are the arms and legs of the agents. They will not be able to work if we don't do that right, and this is what I mean with foundation work.

[06:25] The other part of the foundation is ourselves. Transformation is often inspired or even enabled by technology, but it's never happening by technology. It's happening by people

doing it. And therefore, taking that change along, starting with ourselves, changing my habits and how to do my job, and multiplying that to everybody who's involved, that, I think, is the most important part, and we did that from the start.

Danielle Rios: [06:54] Yeah. Those are two very profound ideas, and I want to talk about both of them. And so, we'll take the first part, the data platform, as being the core, and I write about this a lot. It's not just about the rows in the databases and the information you find in the cells, but the key is building enterprise-wide context.

Mark Düsener: [07:14] Yes.

Danielle Rios: [07:15] That's what you're trying to do.

Mark Düsener: [07:16] Yes.

Danielle Rios: [07:16] Data is a very big part of that, obviously. But what the data contextually means and semantically means is very important if you're going to build an AI-first, AI-native telco. If you go on to Twitter, people are always talking about "my agentic loop," and they've built context for their one job or maybe they're a small team.

Mark Düsener: [07:38] Yes.

Danielle Rios: [07:38] But when you start to think about context that you're sharing across thousands of people and many, many departments, this is a new kind of problem of how you maintain that and how you keep that in sync. And so, you guys are putting all of your data into one platform. I think that's the plan. And so, are you creating semantic consistency across all your systems into this one platform? Is that the goal?

Mark Düsener: [08:04] It is. It starts with, I mean, having a similar syntax. So we have our data model, which is derived from the data model that the TM Forum defined. But then as you said, first of all, you have all the sources who have more or less well-defined data models. You need to transform them.

Danielle Rios: [08:20] Yep.

Mark Düsener: [08:21] And while transforming them, you need people who are not data experts, but domain experts, to explain the data, and therefore contextualize the data.

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Danielle Rios: [08:30] Yep.

Mark Düsener: [08:31] So that is the work we are doing, and we will be done with the majority or most of it by the end of this year, then we have, let's say, the sources ready, and then you combine those, because the definition of a customer resides in multiple sources, in multiple contexts. And therefore, you create a joint context, an enterprise context. This is what you mentioned.

Danielle Rios: [08:52] Yep.

Mark Düsener: [08:53] And then we're not talking about AI, but even that, having all data at hand, being able to set up a prompt and say, "Okay. We launched this new product. Can you tell me how many 35-year-old women in Zurich bought it yesterday?"

Danielle Rios: [09:09] Yeah.

Mark Düsener: [09:09] Imagine this is amazing to me, and that's just the starting point of the rocket, I would say.

Danielle Rios: [09:15] Yeah.

Mark Düsener: [09:16] And then the other part is, at that point, we already need to operate, because, obviously, sources will change. We need to make sure that any patch, any version update in a source doesn't corrupt the data consistency, because everything we will do will be built on that consistency. And if we don't do that right, then the agents might not even hallucinate. They will just base their decisions on wrong data, or the humans as well.

Danielle Rios: [09:44] Yep.

Mark Düsener: [09:44] So building that data consistency and loop, I think that is as important, and adding context, because context is not a status. It's a living object.

Danielle Rios: [09:58] Yep. At Totogi, at my company, we call that ontology. We have a product that does that. It's also built on the TM Forum SID and ODA standards built specifically for telco, and I agree with you. This is not where the agents live. This is what governs and guides the agents.

Mark Düsener: [10:16] Yes.

Danielle Rios: [10:16] I believe that the agents shouldn't be deciding. They should be referencing the ontology, which is the model, the

semantic consistency, the knowledge graph, and the decisioning. But I believe this is a callable entity. This is not a data lake.

Mark Düsener: [10:32] No. No, no. It's not a lake. It's not you dive in, you don't know.

Danielle Rios: [10:36] Yep. It's so much more than just access to the data, and it's so much more than just semantic consistency, because it needs to capture the decisioning of the organization, and it needs to be in one place so that the organization can control the decisioning. If you decide to introduce a new class of customer that has provisioning rights, the billing needs to be updated, the network needs to be updated, it has to all go together, like you said with your speed goal.

[11:00] In the old days, this is a yearlong project, because you had to touch so many systems to make sure all the systems know about the new class of customer. But now, with this kind of concept, you could put it into one place, and all the agents will immediately be updated.

Mark Düsener: [11:12] Yes.

Danielle Rios: [11:12] And so, what is your plan for the legacy estate underneath? You mentioned it a little bit where you're like, "We have to keep it consistent when there is a patch or an upgrade." Is your plan to eventually write your own new layer and eventually phase out the estate underneath, or nope, you're going to keep the estate the way it is, but build on top of your One Data Platform?

Mark Düsener: [11:37] I mean, the One Data Platform is new, and the legacy, so to say, is feeding into that, or it's maybe not even legacy. It's the surrounding system. It's the network. It's the BSS. We are completely renewing our BSS.

Danielle Rios: [11:50] Yeah.

Mark Düsener: [11:50] So therefore, yes, this will be changed. But just imagine, because the legacy is now feeding into the ODP, and the new system will feed into the ODP.

Danielle Rios: [12:01] Yeah.

Mark Düsener: [12:01] Migration is a data migration. And now, you have curated data, because in the legacy, you have crippled data.

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Danielle Rios: [12:08] Well, you have 10 meanings of customer, but in your new one, you have one. And so, you're going to build new apps on top of that.

Mark Düsener: [12:13] Yes. So the hard work in every migration is making sure that you get the data done, and this is what we are doing already.

Danielle Rios: [12:20] Yeah.

Mark Düsener: [12:20] So I think there are some benefits. And apart from that, we, since years now, have a very clear strategy, which is simplification and getting rid of legacy. I always say, I have one dressing room. If I need a new pair of jeans, I need to throw away another one, and this is how we work. So we don't stick new architectures on top of legacy.

Danielle Rios: [12:42] Yeah.

Mark Düsener: [12:43] That doesn't make sense.

Danielle Rios: [12:44] Yeah. Well, that's a good way to collect a lot of technical debt.

Mark Düsener: [12:48] Yes.

Danielle Rios: [12:49] Well, let's talk about the other thing you were talking about, which is the people side, bringing the people along. Even though you're a technology leader, there's a big human and HR component to this change. As you know, I think journalists like to sensationalize, "Oh, Oracle is laying off people because of AI." And so, people are fearful through this, but how are you guys bringing them along so that they understand while this does obviously benefit Swisscom, this could potentially benefit them as well?

Mark Düsener: [13:21] It does, and it should. We lately had a session with one of my teams who's redefining how we develop software, and they said, "You know what? Today, we don't want to talk about technology. We want to talk about messaging."

Danielle Rios: [13:32] Yeah.

Mark Düsener: [13:32] Everyone is talking about AI as efficiency. We believe that's wrong. I think what we are doing right now is, AI is all about productivity gain, and productivity gain is all about

growth. So AI shall be about growth in the sense of it can be much faster in doing innovation.

Danielle Rios: [13:50] Yeah.

Mark Düsener: [13:51] We can serve our customers better with more innovation, with better services. It's also about personal growth. It's the ability to learn faster and quicker. And yes, there is some efficiency that we can use in order to have even more capex, more capital at hand to drive further innovation. So more as a fuel to be faster and bigger than a fear because it's efficient, but that's easier said than done. We all have legacy that starts with habits, but that also starts with roles.

Danielle Rios: [14:25] Yeah.

Mark Düsener: [14:25] We have super experts that made Swisscom what Swisscom is, and that is what I call the hero culture.

Danielle Rios: [14:32] Yeah.

Mark Düsener: [14:33] So we have people. I know certain names I would call if our network is down. Now, I tell them, "Your knowledge needs to be codified so everybody can access it."

Danielle Rios: [14:45] Yep.

Mark Düsener: [14:46] So they need to redefine themselves who I am if I'm not the hero anymore, who I am if I'm not acting with a system, but directly on CLI, because that is something an agent will do, but making sure that they behave, making sure that the quality of the system is increasing in total.

Danielle Rios: [15:05] Yeah.

Mark Düsener: [15:06] This is redefining my work, my job, and even my meaning within the job, and that is a challenge, but to be honest, it's also great. I see examples of people doing it tremendously. So using Kiro, Copilot, Cursor, whatever, on noncoding roles to optimize that job, and even this principle of skill. That was something that came to my head lately, the logic of the skills, the codified experience.

Danielle Rios: [15:35] You're talking about skill in Claude-

Mark Düsener: [15:37] Yes.

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Danielle Rios: [15:37] ... where you can call a skill?

Mark Düsener: [15:39] Just imagine I experience something, and I make that a skill. I put it into the skill library so you can access it. So all of a sudden, 1,000 people have that skill. This is something we never had in humanity.

Danielle Rios: [15:54] Correct.

Mark Düsener: [15:56] Training in the past was always, "Yes, there's someone with experience who can tell me, but I need to make that experience." Today, this experience is codified.

Danielle Rios: [16:04] Yep.

Mark Düsener: [16:04] This is really amazing.

Danielle Rios: [16:06] It's super, super powerful.

Mark Düsener: [16:08] Yes.

Danielle Rios: [16:09] It really does give leverage to your best experts across the organization. Teaching was almost like I had to read a book, kind of like a skill is writing a book a little bit about your knowledge, or it was human-to-human meetings and teaching or human manual effort.

Mark Düsener: [16:27] Yeah.

Danielle Rios: [16:27] And the other day, I wrote a skill for someone on my team, and I'm like, "This is how I think about giving you feedback on a piece of work that you're sending to me to evaluate." And I just shipped a skill to them, and now they can grade it on their own.

Mark Düsener: [16:39] Yeah.

Danielle Rios: [16:39] And then when they send it to me, it's pretty good. It's saved me time, certainly, but they've also learned through the process of how to make their work better.

Mark Düsener: [16:47] Yes.

Danielle Rios: [16:47] And so, the whole entire organization is lifted, but this is really scary for people who have hoarded their knowledge. It is their value to the company and the reason they've been promoted. And so, you're commoditizing their knowledge, and

they're like, "What am I? Who am I if I don't have this?" And I'm like, "You're the maintainer of the skill."

[17:09] To recreate your brain is going to take a long time. It's not just something you fire up in Claude, create a skill, and you're done. And so, we tell people to spend an hour every single day working on your special skill, and you might have a couple of talents.

Mark Düsener: [17:22] Yeah.

Danielle Rios: [17:23] I have M&A talents. I have entrepreneurial talents. I have marketing talents, HR talents. And so, I have multiple skills that I'm constantly working on to ship and make better. But one skill that I do not have is a cooking skill, but I understand you do enjoy cooking. So when you're not running one of the most demanding and most exciting transformation projects in all of telco, you like to cook. And so, my question for you is, what's your specialty dish?

Mark Düsener: [17:53] So first of all, it needs to be with friends.

Danielle Rios: [17:56] Yeah.

Mark Düsener: [17:56] That is the key ingredient, I would say. And then there are multiple dishes, but something I often do is filet with asparagus and sauce béarnaise. I love to do that-

Danielle Rios: [18:07] Perfect.

Mark Düsener: [18:08] ... because often, people don't do it themselves, especially the sauce, and I love that.

Danielle Rios: [18:13] Yeah. And isn't béarnaise famous for being a very difficult sauce to make, like it's complicated?

Mark Düsener: [18:19] It is said so. To be honest, I don't think so, but therefore, people are scared to do.

Danielle Rios: [18:26] Yes.

Mark Düsener: [18:26] And therefore, they always love if I do that, and maybe that's why I'm doing it.

Danielle Rios: [18:31] That's the impressive part. Well, true story. During COVID, I was starting to think about doing Totogi and starting to pitch it. And so, I pulled a bunch of journalists together, and we

did this thing where we shipped cooking boxes to a bunch of journalists in telco and did a cooking show with a real chef, and one of the things we were making was béarnaise sauce, and we were all remote, because it was COVID.

[18:55] And I was sitting there looking at my sauce, and I literally thought to myself, "I've seen better looking vomits." I mean, it was a disaster. So I'm very impressed that you can do béarnaise sauce. I cannot, but it sounds like you guys are really figuring out how to build an AI-native, AI-first telco. It's a rebuild from the ground up. You said it earlier, people, process, jobs, systems. It's not just technology, and I wish you guys the best of luck. And hopefully, we can catch up again soon and talk about how it's going.

Mark Düsener: [19:26] We will.

Danielle Rios: [19:27] So thank you, Mark, for coming on the podcast.

Mark Düsener: [19:29] Thanks for having me.

Danielle Rios: [19:30] Awesome. Stick around. We end each podcast with a "Telco in 20" takeaway. I've got two minutes to tell you something you need to know. Swisscom is making two smart moves. First, a single data layer underneath the entire company. A place for customer means one thing. And second, converting human expertise into skills that AI can use.

[20:01] Most people will hear those as two separate projects. They're not. The skills work only because of the data layer. Here's why. Most AI approaches, fine-tuning, RAG, stuffing rules into agents, all do the same thing. They copy your business knowledge to wherever the agent is. But a telco's facts change every week, pricing, promotions, provisioning rules.

[20:25] 1,000 agents means 1,000 stale copies to hunt down every time billing changes one rule. Swisscom's answer, don't copy the facts. Keep them in one place. Skills carry the know-how. The data layer holds the facts. But I take it a step further. Agents don't just need facts. They also need meaning and a foundation for making decisions, like what a gold-tier customer is eligible for or what happens when one downgrades.

[20:56] Put all three in one living model, facts, meaning, decisions, and that's an ontology. One change, one update, every agent made current instantly. Now, building that model from scratch takes years of encoding how telco works. So we did

it for you. The Totogi Ontology is that living model, built for telco, ready for your systems.

[21:20] It connects everything you run to one shared language so AI can reason and act across your organization. Built on TM Forum standards, it fits what you already have. Nothing to rip out, no multiyear transformation. Want this for your telco? Totogi can do it. DM me on LinkedIn or X, @TelcoDR, and let's talk. Until then, tune to more "Telco in 20" episodes, like and follow, and leave us a five-star review. Don't forget to sign up for my awesome email newsletter on telcodr.com, and check out our killer YouTube channel and hit that subscribe button. Later, nerds.