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DRIVING DIGITAL IN BIOPHARMA

ENABLING TOMORROW'S SCIENCE THROUGH DIGITAL

AUDIO TRANSCRIPT

Tom Lehmann: Hello and welcome to *Driving Digital in Biopharma*. I'm your host, Tom Lehmann.

In today's episode, we continue our podcast series through a conversation with Anders Persson, who was recently a Digital Transformation leader in AstraZeneca's R&D organization and now oversees the ecosystem strategy for AstraZeneca R&D. My conversation with Anders spans from the role of digital and data in the transformation of global drug development, to the value of an ecosystem and partnership strategy within biopharma R&D. I'm excited for you all to listen to our conversation.

Anders, welcome to *Driving Digital in Biopharma*. It's great to have you here today.

Anders Persson: Thanks for having me.

Tom Lehmann: So for the benefit of our listeners, can you provide an overview of your background and then your current role at AstraZeneca?

Anders Persson: Yeah, happy to do that. So I've been in the business and been with AstraZeneca for actually a number of years. I have a science background.

I got to PhD in biochemistry a long time ago, knew a few things about the metabolism… then left academia, came into the world of clinical drug development in Astra, but then later became AstraZeneca. Lucky enough to be involved as a global project lead to bring medicines all the way to patients, doing the healing and daily regulators around the globe.

Spent a number of years working with portfolio and capacity management in different parts of the R&D business, which also brought me to working at Medimmune a biotech company AstraZeneca acquired. I spent a number of years in the US before returning to Sweden, where I am now based. I spent a number of the last few years been spending time working as a Department head in clinical operations

overseeing study management and also for a couple of years I was accountable for our processes and technology and back office support to our clinical trials.

Since I always had opinions and constantly thinking, pushing the boundaries for how we do and think which we can do better, I ended up in a world where I became a Digital transformation lead a couple of years ago. So I was involved when we were setting this thing for what the fourth industrial revolution would mean for us in clinical drug development. And what I'm doing since last year is that I'm always overseeing what's called our ecosystem strategy that is really focusing on the capabilities we need in the future.

So we have—one of the strategic R&D sites in AstraZeneca is in Gothenburg in the Swedish West Coast where I'm physically based. And we have some exciting things happening around us where we are working with external partners to ensure that we get…or should we say, that we support the growth of life science, focusing on tomorrow's technology and science, because we believe that is tomorrow's technology and science that we should use to solve tomorrow's health care related matters. So that's the kind of stuff I'm involved in nowadays.

Tom Lehmann: So in your current role that you said you were pushing the boundaries and so you were asked to take on this digital transformation lead role.

Can we start there to say, as you think about the transformation potential of digital within R&D, how do you think about that and what progress has been made?

Anders Persson: When you're in the moment, I always think such things should have happened yesterday. It's frustrated that things take time. But if we look back, there are actually a number of things that have happened and I think it's going to continue and it's going to continue to move fast as well. At the same time, it takes time to establish transformative ways of working. And if we look in particular on the drug development side of R&D, the backbone, for instance, for how we do clinical trials and how we document the efficacy and safety of our medicines, the backbone is paper based and it hasn't really changed that much.

But what has changed is that for what originally was paper based, we have applied new technology on top of that. That has resulted in we are able to do things faster, doing it more efficiently. But it's also incredibly complicated to maneuver and manage today. So I think there is a significant potential to how you digitize the backbone itself. But I think that's still a way to come.

But I for sure see that there are things that has happened and I think the pandemic in itself accelerated things. So if we link on, bring up a few examples where digital is playing a significant role today, it is in data collection. We also see software being applied through mobile apps and then something that became very predominant during the pandemic—and I think we are all

pharma players involved today are using—are clinical devices, telemedicine platforms, how it can apply that. And then what I also see knocking on the door is how AI can support decision making in the process as well.

Tom Lehmann: You mentioned that there's been some acceleration or progression during the COVID pandemic. There seems to be a couple of different perspectives out there at this point of saying will we revert back to where we were because it's comfortable and known, or will it actually represent lasting change? What's your perspective on that?

Anders Persson: I think it will be lasting change. I think just one example, because I mentioned telemedicine, for instance, number of patients they didn't well…I can be very personal on this one. Unfortunately, I had to go to the emergency room twice during the pandemic with individuals close to me. And if I had been pre-pandemic, I believe we would have spent a number of hours in the waiting room.

During the pandemic it took five minutes to get through because everyone would stay away from the hospitals. So I think telemedicine and the increase of telemedicine and I think that's something to stay and how we utilize that into drug development, I think that's what we are for sure working to find a way forward on and are applying as well.

And the same goes with that, remote monitoring from a sponsor point of view or how a CRO is supporting clinical trial—that is for sure here to stay because you couldn't simply visit the hospital during the pandemic.

That is one way to drive efficiency. And I think those are for sure here to stay. And I believe that this takes me into the way of how you transform your business, because cases where I think have done stuff that is perceived as an outlier, those are the ones you should look for.

If that is really cutting time and driving efficiency, how can you make those the norm? What would that take? That's something not to ignore but to keep in mind.

Tom Lehmann: And are you seeing at this point—you mentioned telemedicine, the application of we'll call it, broadly speaking—decentralized methods becoming more of a standard in the way that clinical programs are designed? Because obviously it starts at the design stage to say how do I use technology in a different way to perhaps bring the trial to the patient or reduce the patient burden? Are you starting to see that shift on the clinical program design side?

Anders Persson: Would love to say, but I would say yes, I see it clearly now. I think it's still the early days—but it's for sure something we are pushing, because give you some data on this, it actually goes back in a couple of years ago. I think it was 2018/19. We looked back on the most recent about 100 late-stage clinical trials we have been executing.

We looked up on the data we were collecting in those trials, how much of that data could actually have been collected remotely—and then recognizing that this was done in a few years ago with the technology that existed then—we concluded that 70% of the data in those trials could have been collected remotely

and that was with the current way that those studies were designed. But it was only 10% of data that were collected remotely.

So that said, that for sure create an opportunity. How do we do much more of that? How do we get into that more of the virtual setting? Because there are gains from both the patient and the site point of view in that. So it's something to keep in mind, of course, when you do the design and that takes quite a while to do. It is early days, but I think that's going to be one of the big changes over the next couple of years to come.

Tom Lehmann: And certainly that sets up a good discussion around how do you address just the continued patient recruitment challenges? Right. The industry has faced for many years to say, are there different ways in which you can use technology to find the patient, to engage the patients, to bring them into the trials? And again, as I said before, bring the trial closer to the patients? I'd imagine that there's good progress being made in your organization in that space as well.

Anders Persson: It is. And I think the Holy grail is sort of imagine a world where we were doing clinical drug development, where clinical trials for patient recruitment was not the rate limiting step. And instead it was the treatment duration that was rate limiting. I think that's probably Holy Grail. How do you get there?

One of the facts is that a huge majority of patients are never participating in drug development in clinical trials. But when you're out interviewing and we've done that, we've interviewed a large number of patients on this aspect and a huge majority are very willing to participate—which actually makes me hopeful about human mankind because many people also realize that it may not be the best treatment for me, but I'm contributing to the greater good—and I think that's good to hear.

But how do we make it easier for people to participate? And how do you remove the whole—and also how do you make it easier for sites to participate? And how do you turn it into a positive experience in the sense that patients actually feel that they are an active, confirmed, recognized contributor and not perceive themselves to be a passive data source?

So I think that's…all aspects that need to be addressed. But getting into this, how we make it easier for patients is one, but it's probably about addressing the patient journey. But realizing that the clinical trial is just a component of it, you need to start much earlier, probably identify larger cohorts up front and keep them informed and informed about what's going on. And when the time is right, then you reach out.

Tom Lehmann: So let's jump from that point into a broader conversation around just the operational data. So obviously, as you're saying, identifying a larger cohort speaks to just understanding where the patients are who potentially could participate in the trial. But there's lots of other aspects of the operational data which it feels at this point are still a bit untapped or not fully utilized to really drive notable change in the way that the drug development is done.

So just interested in your perspective on what you see as the potential in that space to really drive a different outcome through operational data.

Anders Persson: I think coming back to what we talked a few minutes ago touched upon the design phase, I think there is bringing the operational insight into the design in the terms of understanding how you set up your clinical trial, how you make it—also connecting into the patient aspect, getting much more hands on patient perspective during the design phase.

Also healthcare professional insight. So during a simulation of your setup of the clinical trial, engaging patients, healthcare and site staff, for instance, is probably a good one to make sure that you have something that is operational feasible and probably can even become more efficient. But using data in your execution phase, but also in your design phase, has sort of always been slightly surprised to me that we are prepared to kick off experiments, i.e., clinical trials that may cost hundreds of millions of dollars because (I'm exaggerating a bit because), well, now it's just right, let's go guys, while you can.

And I think this is what I expect us to see in the industry over the next years to come. That we can use operational data and also soft intel to do modeling and simulation of the operational setup. You could actually do Monte Carlo simulation of the setup you have if the appropriate site mix is, what is the likelihood and probability of this actually going to deliver?

And then, of course, you follow through with simulation and modeling your data while you're in execution mode as well. But a big one also is when I started investing many years ago, our internal senior stakeholders, they were happy to get an update once a month, sort of. Then it became a bit more frequent.

But nowadays there is an expectation that you can provide updates 24/7.

That means that you need to be on top of your data and you also need to be able to give a clear indication are we on track or not. And that's where utilizing advanced analytics to do modeling and prediction, that's how you can utilize your operational data. And that's what I expect us in the industry to see much more over the next years to come.

Tom Lehmann: What's your sense of the biggest blocker to that? Is it the availability of quality data on a timely basis? Is it the analytical tools, or is there a cultural gap that we've got to overcome to really drive that forward?

Anders Persson: I think it's all of that, frankly speaking, but to do it takes some skills. I think the analytical methods are there because they are existing and you can apply from other industries.

I mentioned, for instance, in Monte Carlo simulation, but in order to make it, improve the outcome of it, you need also to figure out how you apply soft intel into the model. And that can be difficult to get hold of.

And I believe many are actually trying to do this, but I think tradition is one, data is one and then traditional encounter goes hand in hand with this. I also think it would be published on positive cases. I think people are looking for benchmarks. I think people are looking for best practices and sharing those. I think everyone would gain from that.

Tom Lehmann: So as you look at some of the changes you've gone through, just from an organizational standpoint,

as you said, culture was probably one element of it. As you just said, showcasing some of those successes does help to move an organization along. What does it really take, though, to move an organization along through this, call it a digital journey, if you will?

So you've been in this transformation role. What have you seen and what are some of the observations you've had?

Anders Persson: I think there is saying it takes a village to move a mountain. It takes a lot of effort, and you can't invest enough in change management activities.

But it is methodically and there are frameworks for this, mapping out the other one's impact, but also recognizing that there are—every one of us who are involved in doing the job—when it comes to developing new medicine, the huge majority, essentially everyone I met through my career are really passionate about what they do. And that means that they take the job seriously.

And you need to make sure that if you get them behind you and to support the intent, that's a good start. But also listening carefully, how do they experience their work life today? What are the roadblocks, but also recognizing that it's one thing to fix problems here and now, but you need to get into a mode where… imagine we talked about the world where the Holy grail of patient recruitment not being rate limiting…but what would that look like?

What does it take? What are the steps we need to take and gather that insight? But it is about being able to paint a picture. Where are we heading? Why are we doing it? Making sure that there's a clear purpose—and then being able to address the questions and also recognize that you don't have all the answers to all the questions. And then also follow through and take accountability for when things are not going in the way that you hoped it should go.

A lot of it's about leadership. And personally, I think there is an evolutionary reason why we have one mouth and two ears. We should listen twice as much as we talk. And I think that in a change management point of view is really important that you listen.

Tom Lehmann: Yeah, I think…well said. And again, I think often organizations are so focused on trying to drive towards an outcome, at some point they stopped listening, as you said. So I think, I think it's really well said.

What's your sense then? So if you assume that, again, you said people having a purpose, right, that's what is the reason for working in this space? If we take as a given that you are trying to drive towards the appropriate and meaningful clinical outcome, and that's a combination, of course, of both efficacy as well as safety, then if I go to the next level, where do you see digital playing as it relates to either speed so accelerating the process to get there or reducing the cost?

Because obviously it's a very costly endeavor to bring new products to market. What have you seen as the next area focus? Speed versus cost?

Anders Persson: It seems to be speed, but it must be cost as well. Quality can never be in doubt. However, it still takes years to bring a new medicine through and the cost is just increasing.

And how sustainable is that? That sustainability question has been on the table for a couple of decades now, but we're still continuing. I think it's going to be much more pronounced because now we are in an era where, if we look back when I started in the late 1990s, most of the medicines that were in development, they were dealing with the symptoms of diseases.

They began to slow down the progression of disease. And that's what we're seeing now since the millennium medicine is coming doing that. But now we're in the era where we are seeing medicine therapy is coming to cure the disease. I think that what that means from a drug development—and then cell and gene therapy, for instance, running clinical trials with that different settings, really complex.

I think that will speed up and change things as well. To what extent, how it then can apply that to more traditional medicines, I'm not sure. But of course, there are ideas that you see coming through and you need to figure out how to apply them. But speed is always going to be of essence.

But it doesn't seem that overall that we've been really able to cut that much time. But pieces are being taken off for sure.

Tom Lehmann: So as you look then to the future here in your digital transformation lead role, you think about what the strategy will be. Right. And it needs to be rooted in some business objective. How do you formulate that? How much of that is business defined, technology enabled, business and technology working together with a very specific objective mind? How does that playing out? What's your recommendation there?

Anders Persson: I would say it needs to—if I go back to when I was done working as a digital transformation lead—I think it became we realized upfront that there can't be one business view and one sort of IT or “techy” view. It needs to be a close partnership. There needs to be one view and you hold yourself jointly, accountable and responsibility for how you do it and also the outcome of it.

Because from the business perspective, the business know what the business know and know the core business, what it takes to get how you do your business also. But if you look on the technology side, that can be so much influenced by solutions or opportunities from other sectors.

And I think that's where—and innovation is not more complicated, but you take something and move it into that works in one move it into a different context—but that's

how it creates innovation and through technology, that's how transformation could actually happen pretty rapidly nowadays.

So that partnership is, I think it's fundamental to be successful over time because it's one thing that you implement something, but then you need to maintain it and continue to develop it as well, which is even more important—because I think something we have learnt over the last few years is the agile way of working, agile development that in the sort of the old days, not too long ago you launched something and then you live with it for a few years and there was maybe an update coming.

Nowadays it's much more of a continuous development with continuous releases, for instance, of certain solutions, which is a big change from a back office point of view, both from the business side and IT side.

Tom Lehmann: Where in that sits your ecosystem strategy? You mentioned your introduction, that was part of your focus. So how does that factor into the strategy?

Anders Persson: From my point of view, what big learning I had from the transformation role into the ecosystem role I'm doing today, is that don't think that you can work up a great master plan and everything will fall in place. Start doing—dare to do. And then be clear what the goal is and be prepared to change and act as things are emerging.

And especially when our ecosystem strategy is really focusing on taking science of tomorrow, which we don't know that much of. But we are doing a serious attempt to understand what are the capabilities we need in a few years and how do we get access to those? And many of those are in its infancy, and if you're not prepared to adjust, then it won't fly.

You can't expect it to be a fully baked solution, but it's ready to plug and play. So it's both to understand how well could it fit and where would it fit. And also then coming back to this about impediments for data usage.

And this is one where you need them to be understanding—who are the ones, for instance, internally, who are willing to push the boundaries maybe a bit more than others, and to be willing to be the trail blazers and daring to do things in a different way.

Tom Lehmann: You mentioned in there, acknowledgement of the tech and science of tomorrow, and again, not necessarily knowing what's ahead of us. I think an example of that is the investment that AstraZeneca has made in the Bio Venture Hub. Can you share a little bit about what that's focused on? And then in there, what role does digital play to help enable it?

Anders Persson: Yeah, happy to do that. Bio Venture Hub, we claim that it's an innovative 4D ecosystem Anders Persson: Yeah, happy to do that. Bio Venture Hub, we claim that it's an innovative 4D ecosystem that is fully integrated at the heart of our R&D site in Gothenburg. And the four “D’s”

Yeah, happy to do that. Bio Venture Hub, we claim that it's an innovative 4D ecosystem that is fully integrated at the heart of our R&D site in Gothenburg. And the four “D’s” stands for Drugs, Devices, Diagnostic and Digital, is to describe what the scope is, the focus has been on scale up companies, not startups.

And the background to this—and it was inaugurated in 2014. So it's been around for some while now. Because at that time we saw that—and this is not only in Sweden, but I think we do the same observation in many areas around the world—quite a lot of support for startup companies, entrepreneurs, both in the academic setting, aware that have an idea and they can get support on how to create a business around it.

But what we observed through many of our business development activities was that many good ideas, they don't really fly, not because the idea wasn't really good but because the people who are driving it, they simply don't know what they don't know. We saw that in particular in an R&D setting that we could provide a great deal of support helping these companies to establish themselves as a real business.

We are simply, you should say a nice landlord. They get access to our infrastructure, they get access to capabilities within AstraZeneca. But what we are very deliberate on is that—and by the way, we have no commercial rights to any IP that these companies are generating.

We're also making sure that the companies we bring in and today we are hosting I think it's 33 companies and three academic groups.

We are making sure that there are no commercial tension between them and us in the sense that they don't have a product or an offering that is the same as we have. And we're also making sure that within the community Bio Venture Hub companies that there's no commercial tension between them either.

And besides the traditional due diligence before we allow companies in, we also do sort of a cultural due diligence because we call it “dare to share.” We want this to be an open area to drive innovation because with avoiding that commercial tension and with scale up you have your IP in place or you have, you're much more willing to share your share opportunities and dilemmas as well.

And it is in many of those conversations where solutions and new ideas are coming up. And this has turned out to be a really successful mechanism. And a number of these companies have really established themselves as some significant businesses and a number of them have outgrown and are now going to move further into the ecosystem as well.

And you asked about digital in this. It is quite an analog environment because you need to have a physical presence. So it's not a virtual mechanism. But what we're doing is that we have initial focus of the companies

that we brought in were biotechs, but there has been a clear trend over the last few years, but bringing companies or more high tech nature, including in digital businesses.

So for instance, there is one company that is a mixture of how you apply gaming in the pharmaceutical sector, for instance, which is pretty exciting. So it's more of a digital and tech profile that we are now looking for in this.

Tom Lehmann: It's exciting. And as you said, it's been going on for some time to get the benefit over time to see the progress that some of these companies have made and where they're going. And as you said, it's a great milestone to get the point where they're outgrowing the structure that you've established, which is quite interesting.

Anders Persson: I have one more comment on it, because we have asked recently, just last year we're doing work together with the School of Economics at the University in Gothenburg, where we have looked on the valuation of the companies versus how their interactiveness and their openness, and the data is actually indicating that the more you collaborate, the more you gain on a company value.

So the more you interact with others the better it is for your business. So taking the time to interact with others might not seem rocket science, but having the data to showcase that and not being overly secretive about what you do, that seems to be a winning concept here.

Tom Lehmann: As you said, it seems obvious but not always what actually plays out. But nice to be data backed, which is interesting. Let me jump to another thing then in the spirit of collaboration and I'll make another jump to more convergence. AstraZeneca has been public with its role in the GoCo Health Innovation City in Gothenburg. Can you talk a little about that and what the objectives are and the role that again the digital might play in helping to enable that future?

Anders Persson: Yeah, happy to. As I mentioned when we talked about the Bio Venture Hub, there are some number of companies that have now outgrown the Bio Venture Hub and I said that they're going to move on. Well, a number of these companies will now move into what's called GoCo Health Innovation City. Background to this is that five years ago AstraZeneca sold a relatively big piece of land immediately south of our site in Gothenburg and to a joint venture called, newly created one called GoCo.

And the reason why we did that was that, well, all the analysis showed that we had enough territory anyhow for any future expansions needed. But also we saw that this joint venture brought a really exciting vision. They wanted to create and establish a life science cluster of world class and we saw that if we can contribute to that that will gain us over time as well.

So it's all a part of this ecosystem strategy, I was mentioning before that by us daring to

share we are contributing to the success and what we've done through the Bio Venture Hub—because sort of the Bio Venture concept that we would try to scale. That's what GoCo is all about, but in much grander scale. So there are some significant investments behind this and it is beginning to take place.

And the ambition is that over the next five to six years, five years, there's going to be another 7000 workplaces focusing on Life Science in this community or in this area—and then that's in addition to the roughly 3000 we are at AstraZeneca today. Plus also I don't know but far from any far from all listeners to this podcast, even though where Gothenburg might be.

But those who have the local insight may recognize that this is what was paved is looking at as a big dull parking ground or an old dull industrial area, is going to turn into a new path of the municipality with houses, with shops and with restaurants. Some quite great plans on this and it is materializing. First company, Japanese diagnostic company, Fuji Arabia moved in late last year.

But the big one, big opening is happening next year, basically a year's time or the next year when the signature building called GoCo House is opening up, which is about 20,000 square meters. Also there is a MedTech called Mölnlycke HealthCare that is moving their headquarters, 800 people within the next year.

A number of conversations with great interest made from players of all sizes across the globe. Now looking into what this brings for them.

But bringing it back to digital, as I said, we are, we want to scale some of the concepts we see in the Bio Venture Hub, the mix of companies focusing on digital players, mentioned before that part of the strategy is science and tech of tomorrow, digital definitely plays into that.

But also bring it back to how in this community, how can we have technology enabling better interactions with everyone that is part of this community? How do you enable that in a different way and bringing tech players on board to use this as a testing ground for new technology? I think it's a great opportunity.

Should also say that our role in this is that we sold the lands, but we are contributing with our Life Science knowledge and our push for the future of science and tech into this area. So it’s with open doors and open arms, but we are embracing it.

Tom Lehmann: And I have to imagine it's quite a fascinating look at how do you bring together—you listed up a number of different industry players—how do you bring them together with a similar outcome around health innovation and how might that play out. And then obviously you learn a lot along the way around what works, what doesn't work as you try to bring that together.

Anders Persson: It's sort of a really great partnership or relationships because if we look back on the Bio Venture Hub, for instance, none of the companies we brought in there have a product or an offering that is immediate plug and play or interest for AstraZeneca.

But still, over the years there have been numerous formal collaboration that has been established , because it all starts with informal contacts. People starting to talk, people starting to know each other, sharing opportunities, sharing dilemmas. And with that comes insight. And I think it's the same here. Sector convergence, creating meeting places, both physical and also virtual ones, where people can interact and listen and talk to each other.

And for me, this is about the innovation. If I leave a conversation…new ideas are coming up. When I leave a conversation, “Aha, that was a good idea. I have been thinking about that.” That's the starting point for something new, potential innovation. It's not more complicated than that. So it is creating the arenas to do that and share that information and knowledge sharing and bringing down the barriers forward so that people feel that safe to share and talk and listen to each other.

And it's the same here. But then about the partnership. So with that conversation, people started to know each other and trust and respect each other, because if you look on it being a bit more formal—and I've been involved through my years to establish a number of partnerships with external players—where something I've learned is that the starting point to indicate if it's going to be successful or not is: do you have a shared views of the values? Do you share the same values?

If not, kill the conversation and say thank you, move on. But if you do, okay, then you have something you can continue to build upon. Can you then get to the point where you can from get the vision and get a picture of the goal together and then create an environment that you're in it together? I think that goes well.

And then in sector convergence, because if you're dealing with other businesses, your business models are probably not very similar. You most likely don't have the same customers either, which means that there is again no real commercial tension between you and hence you can then…you're much more willing and probably feel much more safe to share knowledge and insights with each other, which both can gain from.

Tom Lehmann: So maybe then if you put this together and let's close on this question to say as you look to the future, I'll give you a time frame of just say the next three to five years. When you're thinking about convergence and collaboration, as we were just talking about what's on the horizon? What do you think plays out over the next three to five years for our industry?

Anders Persson: If we connect it back to where we started the conversation, Tom, about solutions, I think we will see we will see much more utilization of data.

For instance, when it comes to collecting data, collecting data from patients, I say in this also I envision that we will have more patient oriented end-points. In that I mean that through development of technology, we can create more—I call them patient oriented end-points—in the sense that they are more real and less of surrogates for patient wellbeing.

I think that's what technology will bring. So much more of that continuous data connection in drug development. And we're also moving from sick care to healthcare. I think that's also what's going to come out of what we see. That's probably still a bit on the horizon, but with new advanced therapies knocking and or creating cure, I think that goes hand in hand with technology as well and that will drive the need for health care and not just sick care.

Tom Lehmann: I think it's a great vision and a nice way for us to end. I appreciate the perspectives and the vision for where we might go. So again, thanks for joining today. Anders, it has been a great conversation. Great talking to you.

Anders Persson: Thank you.

Tom Lehmann: A huge thank you to Anders for joining me in today's discussion.

As I reflect back on our conversation, Anders highlighted some very interesting points as we explored how to enhance the patient experience in clinical trials through digital. One hopeful observation from him was that a larger number of patients in the future are more willing to participate in clinical trials. The question is then how do you turn it into a positive experience for them? As Anders mentioned, how do you make them feel like an "active contributor", and not just a "passive data source" - and also how might you use digital to engage with patients and enhance their experience in a clinical trial?

We also explored how organizations can tap into the wealth of operational data to improve the way clinical development is conducted. An area with significant potential not yet realized…

While we discussed the importance of partnership between the business and IT (a common theme which we've explored in prior episodes), Anders also emphasized the value of a biopharma organization's role in the broader healthcare ecosystem. Collaboration is key for biopharma organizations going forward, and a well-defined ecosystem strategy will be important for continuing to drive health innovation. Two real-life examples included AstraZeneca's BioVentureHub and the GoCo Health Innovation City in Gothenburg Sweden. I do encourage you to learn more about these two entities.

As we close, I'd like to leave you with one final question: is your organization helping

the industry move from "sick care" to "health care"?

Connect with me on LinkedIn and share your thoughts and takeaways from the episode. As always, remember to like and subscribe to Driving Digital in Biopharma on your favorite podcast platforms so you don't miss an episode. And until next time, this is Tom Lehmann with *Driving Digital in Biopharma.*