



## The So What from BCG

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**GEORGIE FROST:** Climate change poses the greatest and most pervasive threat to humanity and the natural environment. But tackling climate change could prove to be the greatest global health opportunity of this century. That point was argued in The Lancet Journal eight years ago. So, have scientists been proved right? And what are the thoughts of the healthcare leaders who are entrusted with finding the solutions? I'm Georgie Frost, and this is The So What from BCG.

**PASCAL SORIOT:** 8% of carbon emissions in the more advanced countries economically comes from the healthcare sector, which is a lot more than the airline industry.

**LARS FRUERGAARD:** The whole supply chain of manufacturing medicines, but also providing healthcare services in the hospitals, et cetera, is a significant source of emission. None of us can solve it on our own. We need to come together and work together in making sure that we address the whole challenge.

**GEORGIE FROST:** Today in this special episode, I'm talking to Pascal Soriot, CEO of AstraZeneca and Lars Fruergaard Jørgensen, CEO of Novo Nordisk.

**LARS FRUERGAARD:** Well, health and climate change is interconnected in the sense that climate change has a significant impact on our health and on the other way, how we do healthcare is also impacting the climate because it's a significant contributor to fossil fuel consumption and CO2 emissions. So, they intersect climate impacts our health and provision of healthcare impacts the climate.

**GEORGIE FROST:** Pascal?

**PASCAL SORIOT:** Maybe just to add, actually, Georgie, first of all, thank you for having us here. It's really a pleasure to be with you and Lars, but the climate crisis is actually a health crisis. If you think about it, we've talked a lot about Covid and the millions of death due to COVID and of course this was very tragic, but every year we lose more people. There are more deaths in the world every year due to climate change and pollution. There's a rapidly rising number of cancers, respiratory disease, cardiovascular disease, also infections that are directly linked to the carbon emissions and climate change. And as Lars just said, in the healthcare sector, we are here to help people and save their lives or improve their lives, but at the same time, we contribute to the carbon emissions.

**GEORGIE FROST:** Pascal, two years ago at COP26, you started collaborating on a public private partnership called the Sustainable Markets Initiative Health Systems Task Force. Would you just tell me a bit more about that?

**PASCAL SORIOT:** Yeah, the SMI, the Sustainable Markets Initiative is a very important group that was convened by his majestic King Charles III when he was actually Prince of Wales. And his idea was to bring participants from the private sectors to encourage them to work together to help shape more sustainable markets for nature, people and the planet. And essentially he put together 20 task forces covering different sectors of the economy, being aviation, insurance, banking, agri-business, healthcare, et cetera, et cetera. And we created the SMI Health Systems Task force, which is dedicated to the health systems, the healthcare sector. And so we convened a number of companies together. We have the CEOs of Sanofi, Roche, Merck, GSK, Samsung Biologics, Reckitt, that are on board pharmaceutical companies in particular. We also



have representation from the WHO, from the NHS in the UK and other academic institutions across Europe in particular.

We're now also collaborating with a similar group in the US and we're setting up a chapter of the SMI in China. And essentially we are working together to address the decarbonization of the supply chain. We're also looking at decarbonizing the delivery of care, and we are leveraging digital healthcare with a focus on clinical trials. How do we use digital technologies to reduce carbon emissions in our clinical trials? And more recently, we added another specific work group on consumer health and wellbeing that is led by Reckitt. We really work together to see how we can collaborate and share ideas on how we can impact carbon emissions and decarbonize the healthcare sector. And pharmaceutical companies like Lars' company and mine are of course part of the supply chain of the healthcare sector. And we do have to work hard to reduce this.

And I have to say Novo is clearly a leader in the field, has been leader. We're trying ourselves also to show others how to decarbonize and it's really pleasant. Great pleasure to work with everybody on this important task.

**GEORGIE FROST:** Well, Lars, talk to me about it from your perspective, a leader, as Pascal describes you.

**LARS FRUERGAAARD:** Yeah, that's a very generous comment by Pascal and I would start by thanking Pascal for his leadership and actually taking this initiative in the industry. It is interesting to reflect on that the climate change we see is a significant threat for healthcare as Pascal alluded to, but also the reverse that our sector, the total healthcare sector actually stands for 5% of all CO<sub>2</sub> emissions. I think that's something that's not well recognized. So the whole supply chain of manufacturing medicines, but also providing healthcare services in the hospitals, et cetera, is a significant source of emission. And none of us can solve it on our own, despite the fact that I believe our industry has come a long way in actually doing the green transition for our own, say direct activities. But we need to come together and work together in making sure that we address the whole challenge. And I sincerely hope this initiative can both provide concrete solutions and actions, but also source of inspiration for us.

**GEORGIE FROST:** I want to get onto those in a second, but just can I drill down into that 5% figure? That seems a lot. Where specifically are the trouble spots?

**LARS FRUERGAAARD:** Well, you can say that at any given moment. If you just look at transportation, there are a lot of materials being transported into our manufacturing. You'll also see a lot of people actually commuting to hospitals, physicians. And if you look at the whole logistics around a hospital, it's a massive ecosystem of activity and consumption that leads to this 5% burden on the environment.

**PASCAL SORIOT:** And the 5% is actually a global average, and it includes countries that are less developed economically and have less impactful healthcare systems on the climate change. But if you look at developed countries like the UK, Europe, the US, it's up to 8%. So 8% of carbon emissions in the more advanced countries economically, comes from the healthcare sector, which is a lot more than the airline industry. So if you think about it, if you're sick, it's not very good for you to go to the hospital, of course. It's bad for your health, but also you cost a lot of money and you produce a lot of carbon. So fundamentally the goal is to try and keep people out of the hospital. And if we do this, then we help the health, we reduce carbon emission and we reduce healthcare costs. And that's why pharmaceutical companies like Lars's company and mine are really so focused on early diagnosis of disease, early intervention, keeping people healthy, and if they have diabetes, give them insulin if they can or anything else and try to stabilize their health and stop them from being hospitalized.

**GEORGIE FROST:** Lars, you spoke earlier about how far we've come. How far have we come over the past years? What progress has been made in decarbonizing healthcare, particularly since you began your partnership two years ago?

**LARS FRUERGAAARD:** Well, many companies have taken action on own direct emission. So I mentioned that many of our companies have actually done the green transition in securing, say renewable energy sources in powering of their own activities. But we also know that 50% is actually coming from the supply chain. So it's really important for us if we are to have a significant impact that we work together with



those who provide material to us. And when we produce our products, there's a long range of materials going in from chemicals, glass, plastic, and much more. And I think one of the key initiatives is that we have here aligned on a set of joint minimum supplier targets, whereby we make it simpler for our suppliers to actually understand what are our expectations to them. So we set some common expectations on reducing emissions. So we send a clear signal that we are willing as responsible companies to buy the right products and the right services and thereby say, multiply the benefit on the environment.

**GEORGIE FROST:** Pascal, from your perspective, what progress has already been made through your collaboration? What are you hoping to achieve longterm?

**PASCAL SORIOT:** Yeah, actually we are collaborating essentially to decarbonize our supply chain because we are the supply chain of the healthcare sector, but our own supply chain, let me give you as an example as a company, but the other companies in the group are also working on the same issues. We have introduced the use of biogas in the US, in the UK and China to power our manufacturing plants. In Sweden where we have a lot of manufacturing we've partnered with a company to build wind farms. So our electricity, we use green electricity. We're transitioning our car fleet globally to electrical vehicles. We're about 50% through this and we want to be a 100% electrical by 2026. We are reducing energy consumption across our sites and looking at using sources of electricity like solar panels and other green sources of energy everywhere. So doing all sorts of individual initiatives.

Then what we're doing is across the group is partnering to help our suppliers access green energy. GSK is leading the charge in India, for instance, looking at how do we partner to source green energy together and provide this to our suppliers? We're going to do the same in China. So we are really looking at, how can we actually leverage our strengths together? One of the things we've done is as a group, we've established standards that we have asked our suppliers to try and commit to. So we've asked our supplier to commit to targets that can be audited, targets to reduce carbon emissions. The problem is if AstraZeneca asks a supplier to become green, they may decide it's too hard for one company,

but if the entire industry ask for this, then of course they have a big incentive to do it.

**GEORGIE FROST:** That's the supply end. What about perhaps closer to home with you?

**LARS FRUERGAAARD:** Yeah, I would say that as Pascal alluded to a bit earlier, one of the things that we do in the innovation we bring to patients is that we improve health, so to say. So one is, of course to bring out innovation that is preventing chronic diseases or leading to shorter stay in hospitals, et cetera. But we of course also have to cut our own emissions.

And if you look at Novo Nordisk as an example, we are now producing all products across the world based on CO2 neutral power. So all facilities in the world are operating on green energy. We just heard about our commitment to suppliers. We have asked all our suppliers by 2030 to have done the same. And it's actually interesting that most companies, I would say, actually want to do the right thing. But it of course helps you if your customer asks you to do it because then you perhaps also have a customer that's willing to give priority to those who do it, and maybe you can also agree on some financial arrangement that takes a part of the burden away initially and hopefully get to something that's an even more sustainable setup.

And I think also in addition to that, we have also embarked on a journey to actually make it transparent. What is the footprint of the products we produce? Because we all know that what cannot be measured is often not done. So together with partners, we embarked on a journey to actually create the metrics that would guide us in actually articulating what is the environmental footprint of what we do. And if we clarify that for our activities as medicine manufacturers, hopefully that can also inspire others like the broader healthcare system, hospitals, et cetera, to focus on what is actually the direct impact on what they do. And I think that's the first step towards actually making significant change.

**PASCAL SORIOT:** Yeah. So we actually, as Lars said, we are decarbonizing our own companies. For instance, at AstraZeneca, our goal is to be carbon zero for our own scope one and two, our own carbon emissions by 2026 through moving our cars to electrical cars, et cetera, et cetera. And then we are working with our suppliers. Our goal



is to decarbonize the totality of our supply chain, including our suppliers. And Lars has covered that very well.

I think the other thing we're trying to do is champion the use of digital technologies across the healthcare sector, for instance, to run clinical trials. So you reduce the amount of travel that is involved, you simplify everything. We are also looking at the patient pathway, what we call the patient pathway, which is patients going from being sick to being hospitalized potentially. And looking at how do you, as I said earlier, how do you diagnose patients early?

If you are a lung cancer patient and you're diagnosed at the early stage, you can have surgery and medical treatment and be cured. If you're diagnosed too late, your metastatic, you're going to be treated, your life will be extended. Unfortunately, technologies are still progressing, but most of the time people will die and they will die after costing a lot of money, spending a lot of time in hospitals. So, really for many, many diseases, kidney disease is the same. If you look at dialysis, patients who are diabetics will risk ending up in dialysis. So if you treat them well early enough with insulin and anti-diabetic agents, then you will stop them from potentially moving into dialysis. So fundamentally, it's about treating patients early so you can cure them or slow down their disease. And we're working with partners across the healthcare sector to do this and reduce healthcare costs and reduce emissions. In our group, it's Paul Hudson at Sanofi, which is really helping drive this work through our collaboration with other companies and external partners.

**GEORGIE FROST:** Lars, it seems quite a quandary in a way. There's sort of two aspects to this in the healthcare industry. There's one, the emissions that you create and two, the role that you're going to have to play in the future as a result of climate change affecting our health. At a time when you're trying to reduce your emissions, you're probably going to be called upon to do much, much more. Are you not?

**LARS FRUERGAAARD:** I believe we are. I think we are an industry that can actually lead the way. We are used to making large investments, making big risks. That's how we develop our medicines. And I think in many ways, solving the environmental challenges we are dealing with here is a similar proposition that you need to

show a commitment and you need to make some investments upfront. For an industry that's focused on health, I think there's nothing more meaningful than actually addressing the climate issue because we know those two aspects are so closely interacted.

We also serve societies in ways where that unless we make society sustainable, our opportunity to do business with society in the future is weaker. So I think it's a win-win all around for the individual citizens getting better health, getting a healthier environment to work in for the systems that typically pay for our products and thereby also for the industry. So there's really no reason why not to dive into this and form the partnerships necessary and lead the way and get stakeholders like suppliers and we work with the WHO as well at the coming COP meeting. There's a health day organized. So I think getting the ball rolling and showing a willingness to commit and invest is what this is all about.

**GEORGIE FROST:** Pascal, how can others across the health sector and beyond take action?

**PASCAL SORIOT:** Everybody can actually play a role and should play a role. Health systems are very complex, and so of course you have pharmaceutical companies, you have medical equipment companies supplying the healthcare sector, but you also have energy companies, you have logistics companies, you have of course hospitals that are managed. So everybody really should look at their part in the healthcare sector and work together to reduce the consumption of energy and turn to green energy and remove plastics as well.

In our company, we're looking at using biodegradable packaging, and we are planning a big investment in this for our new products. We can need to remove plastics from labs in hospitals and across the industry. And it's really by developing private public partnership and having hospital partner with our suppliers that I think we actually can reduce carbon emissions overall

**GEORGIE FROST:** To both of you, I said at the start that in the Lancet Journal eight years ago, they said that tackling climate change could prove to be the greatest global health opportunity of this century. Do you agree?





**PASCAL SORIOT:** Absolutely, I do. I mean, and as healthcare companies, as Lars said minute ago, our goal really is to improve people health. It's a bit contradictory really, to aggravate people health who are carbon emissions. So we need to do our part in reducing carbon emissions. And I think this is really mobilizing the entire sector to reduce carbon emissions is I think an enormous opportunity for society. But also if we are successful partnering and slowing down hospitalizations, diagnosing people early, treating them, curing them so they don't get hospitalized or they get hospitalized for shorter period of time, all of these goes in the right direction, which is reduce carbon emissions, but also reduce costs in the system.

**LARS FRUERGAARD:** Yeah, I agree very much. If you consider that we have aging populations, if you consider the burden from the environmental challenges and what that causes on health issues on people, there'll be, I think forever or at least for our foreseeable future, a growing need for healthcare. And it's already one of the biggest sectors from an emission point of view. So this problem will just keep growing. So we have to really decarbonize the healthcare sector because otherwise we just keep fueling that societal challenge. And I think we're an industry that has the capacity in terms of both scientific understanding, but also I think the financial means to drive this transition. So it's really a burden that we should take on proactively.

**PASCAL SORIOT:** And also I think that as climate change gets worse and worse, that will increase inequities around the world. In particular in terms of access to healthcare. Countries with lower income, people with lower income will find it more difficult, they will be more affected by climate change, and they will find it more difficult to access healthcare. So we truly have to play a part in this big climate crisis.

**GEORGIE FROST:** Are you hopeful, Pascal, for the future?

**PASCAL SORIOT:** If you're in our industry like Lars and I, you have to be an optimist. We are in innovation. Innovation is very hard. Science has exploded in particular in the last 10, 15 years. There's a lot of innovation in our industry, but it's very risky. So you have to be an optimist to pursue some of these very challenging and risky projects

that we all pursue. I'm an optimist, and in the end, we don't have much of a choice. We have to commit, do our best, and certainly work together to improve this deteriorating climate crisis.

**GEORGIE FROST:** An optimist, Lars?

**LARS FRUERGAARD:** Yes. Like Pascal, I'm a long timer in the industry, so I'm also an optimist, and I actually believe we know what to do. There's still some innovation needed, but I believe we, by coming together, can actually solve this, the CO2 emission challenge on biodiversity. I think we still need to get our heads a bit better aligned on how to do that. And I think those, when you have species that become extinct over time, I think that's a harder challenge to solve. But I'm optimistic on the say CO2 mission. We can solve that. Biodiversity takes a bit more to solve, I think.

**GEORGIE FROST:** Fantastic. Pascal, Lars, thank you so much for joining us and we look forward to seeing what comes out of Health Day at COP in Dubai. Thank you.

Joining me now is Chrissy O'Brien, lead for BCGs climate and sustainability practice in healthcare. Chrissy, thanks so much for being here. BCG has been supporting the SMI Health Systems task force for the past year and a half now. Can you just talk to me about the partnership from your perspective?

**CHRISSEY O'BRIEN:** Absolutely. I mean, this has been such a unique partnership on so many fronts, but there's two reasons I think that really stand out to me that make it special. The first is the level of ambition that these CEOs and these companies have taken on. If we go back to COP27 and we think about the health systems task force, having everyone commit to a net zero emissions target by 2045 was really unprecedented. That's five years ahead of what's required for a 1.5 degree path in the Paris Agreement. And for a company like ours that has such a clear focus, and this is such a priority for us, having the honor of partnering with companies who have the same level of ambition is incredibly motivating.

The second thing I'd say is that this is a coalition that has not just talked about a target, but they've taken action, they've taken real clear action to commit to goals for themselves and for their suppliers. And that's really important in this context because their suppliers actually make up



70 to 90% of their actual emission's footprint. And this year they went ahead and committed to minimum joint targets for their suppliers and then went beyond carbon to include waste and water. And I will say it wasn't always easy to get to this level of agreement, but they really overcame the complexity and pushed themselves to think differently about how they worked together as a group to make this possible to take action against the targets that they had set. So I think those are two things that really make this a unique group of CEOs committed to delivering the change.

**GEORGIE FROST:** What's the future for this group?

**CHRISSEY O'BRIEN:** I mean, I think this group is really going to continue to drive and shape the agenda in healthcare, not just for their own businesses, but really the full ecosystem. Because SMI doesn't just include these pharma companies. It includes WHO, UNICEF, the NHS, as well as their academic partners. So this group together can shape the agenda and ensure that what they're doing actually impacts the full ecosystem of healthcare. And in the near term, we all know that at the upcoming COP, that link between climate and health is going to be so prominent, there'll be a special health day, which is unique in the history of COP. We'll see health ministerial for the first time. We look forward to those announcements, and we're expecting to see more commitments from companies around climate change and it's linked to global health and the need to invest in healthcare resilience. SMI, of course, will have a really prominent roll at COP as they have for the past two years. And I know I personally am looking forward to seeing the announcements and how they'll continue to evolve the agenda.

**GEORGIE FROST:** You were listening to Pascal and Lars talking about how they are optimists. Always nice to hear, but how important is collaboration in this space? Can we do it without collaboration?

**CHRISSEY O'BRIEN:** Absolutely not. And it was, I think a really important note that they all struck when they talked about this topic. Collaboration is essential, both amongst the sector and then across the value chain with their suppliers. And let me offer maybe two examples that really highlight how collaboration has been a force multiplier for SMI.

The first is about obtaining green power in China and India. And this is incredibly important because 50% of the raw materials that go into the medicines that we all take every day come from those regions. And companies had been trying for years to find the right construct to get access to the right green power, but it wasn't until they worked together, aggregated the demand across themselves and their supply base that they had enough to actually go get these deals done at the right price. So these were things that had been tried for years and now by working together, they were able to make it happen. And it's incredibly powerful, particularly for smaller suppliers who now have access to things that they would never have had access to without this.

The other example I'd call out is that there's been a push to get a common framework for how you measure the environmental impact of a pharmaceutical product. It's been a joint effort together with the NHS to harmonize this thinking. And this is data and information that historically has been fairly guarded. And to get this done, it really required, I think, a new way of thinking about how companies have to work together if they're going to achieve the change that's going to be required for us to stay on a net zero pathway. So I mean, collaboration is just so critical for us to make progress on this topic and I think SMI is a great example of how companies can really push themselves to operate in different ways to get the work done.

**GEORGIE FROST:** Chrissy, thank you so much. And thank you for listening. We'd love to know your thoughts. To get in contact, leave us a message at [thesowhat@bcg.com](mailto:thesowhat@bcg.com). And if you like this podcast, why not hit subscribe and leave a rating wherever you found us? It helps other people find us too.