Business Better (Season 8, Episode 12): Sustainability Spotlight – A Conversation with Saint Gobain

Speakers: Brendan Collins and Dennis Wilson

Brendan Collins:

Welcome to Business Better, a Ballard Spahr podcast designed to help businesses navigate the new normal. I'm Brendan Collins. I'm a Partner in Ballard Spahr's Environment and Natural Resources Group, and the leader of our firm's Manufacturing and Consumer Products group. Today's podcast show is part of our Sustainability Spotlight series, which highlights the sustainability efforts that businesses are making to combat climate change and other environmental challenges.

In today's episode, we'll discuss Saint-Gobain, and I'm joined today by Dennis Wilson of Saint-Gobain. Hello, Dennis. How are you doing?

Dennis Wilson:

Good, Brendan. Good to be with you.

Brendan Collins:

Could you start us off, Dennis, by explaining your title and more importantly your role there at Saint-Gobain?

Dennis Wilson:

Sure. Dennis Wilson as you mentioned, I'm the Vice President of ESG and Managing Director of something called Circular Economy Solutions here at Saint-Gobain in North America. If you're unfamiliar with Saint-Gobain, we're a 360-year-old French multiple different product company. We're the largest building products company in the world, so we make everything from roofing, insulation, siding, gypsum, glass. We've been in business for 360 years continuously. The company started with the Hall of Mirrors in the Palace of Versailles in Paris so we've got a cool origin story, and this is our 360th year of continuous operation.

My team works with our North American business, which includes about 160 manufacturing sites across the US and Canada on things like wastewater, energy, CO2 reduction for our plants. We do things like life cycle assessments for our products and environmental product declarations to convey the environmental impact of our products and give us a roadmap to figure out how to work on reducing that impact. We work on product stewardship and compliance issues, and we also have a circular economy business that focuses on being able to get materials back at the end of their life, and hopefully for them to serve as a raw material in the next version of products. That's what my group does in a nutshell.

Brendan Collins:

It sounds as if that's a combination of both external reporting and record-keeping, but also internal service to help keep the company on target for its business mission.

Dennis Wilson:

That's right. Yeah. I mean, some of the reporting that we do goes up to our corporate office in Paris that gets reported as part of our overall impact numbers that get reported in our annual report each year. Then other documents that we

create are used to convey the environmental impact of our products, and they could be used in green building rating systems like the USGBC LEED program, those sorts of things. We have both internal and external facing work that we do for the company and outside of it.

Brendan Collins:

That's terrific. You mentioned, in preparing for this podcast, I was reviewing some of the Saint-Gobain materials and I could barely get my mind around the 360-year age, but you say you trace your origin all the way back to the Palace of Versailles, which I had a chance to visit just a couple years ago.

Dennis Wilson:

We usually win the coolest origin story in the room battle. It's a very interesting way to start the company. The company has a history in glass. We've been a materials company for that entire history, and we continue to innovate on that material history. We strive to be the worldwide leader in light sustainable construction so that construction DNA is still in us. These days, we are trying to focus it as much as possible on reducing environmental impact.

Brendan Collins:

Can you describe to our listeners what you mean when you talk about light and sustainable construction?

Dennis Wilson:

Yeah. What I mean by light and sustainable construction is essentially, we build in a lighter construction way in the US already. You see homes that are stick built, that are metal studs, these sorts of things, as opposed to what you might see in other parts of the world where they're using a lot more concrete, very carbon intensive products. We in the US already build in a slightly less carbon intensive way than they do in other parts of the world. The light part can also mean light in assembly of products.

A good example is light weighting gypsum products, making products in such a way that they are decarbonized, but they're also easier to assemble on the job site so a gypsum installer has to carry less weight when they're carrying a piece of drywall and putting it on a wall. We can both increase the sustainability of that product, decarbonize it, and make it easier for installation. The sustainable part I think speaks for itself. It's everything that I mentioned in there in trying to be able to reduce CO2 as much as possible, the embedded CO2 or embodied carbon in those products as much as possible.

Brendan Collins:

As an owner of an old home, I can tell you, I've put in my share of drywall and I've put in lightweight drywall, and boy, it's a real difference maker and I can attest to that by personal experience. Then when you begin to extrapolate that with not just the sheet I'm wrestling with, but the entire pallet and then the truckload, that's a lot of weight that is being saved that would otherwise have to be turn into diesel fuel and all sorts of emissions that I don't know that it's even possible to capture all that, but it certainly is.

Dennis Wilson:

That's absolutely right. The other thing that I would say about it is we are, I think, somewhat unique in that we are able to deliver the full home in one package. We make roofing, we make insulation, we make gypsum, we make wall systems. We make with our one precision assemblies product factory built walls that can be assembled on site to build a house from the ground up. These are more efficient ways to build. They're more efficient use of materials going into the

building. Less waste is created during the process. All of this goes into that definition of light and sustainable construction.

Brendan Collins:

Well, that is tremendous and you've come a long way, and I know you're sitting in the Philadelphia area. I'm sitting in the Philadelphia area. We're very excited about our 250th anniversary coming up next year, and you've already put us to shame.

Dennis Wilson:

We have been here for quite some time in the Philadelphia area. The company in North America has been in business for over 150 years too, so we've got a lot of things to celebrate with the US and Canada as well.

Brendan Collins:

Tell us a little bit about how the company's sustainability commitment came about.

Dennis Wilson:

Yeah, I mean, I would say going back to what I said before, it's very much built into the DNA of our company when roughly 37% of CO2 emissions come from the built environment, as the largest building products company in the world, there's a huge responsibility that comes along with that. On the flip side of that, I would say that there's a huge opportunity. Sustainability is really baked into the strategy of the company. The tagline that I used before, we strive to be the worldwide leader in light sustainable construction is real for us. Our company strategy is built around the topic of sustainability and how we can serve as a mitigator and hopefully driving towards a resilient regenerative future through building products. It's one of the reasons why I work for the company is that it's built into our DNA and it's something that drives our business on a day-to-day basis.

Brendan Collins:

You mentioned that there are over 160 manufacturing facilities in North America that your team works with. Does that present a peculiar challenge? That's a pretty big number I would think.

Dennis Wilson:

It is a challenge. I mean, we have people on our central team that support on the topics that I mentioned. We also have people within our businesses that are, I would say more process specific experts when it comes to our various businesses across North America. That range of products, as I mentioned, roofing, siding, insulation, gypsum, and then everything from medical products to windshields, abrasives, everything in between. Of course, we have people in the business that help my team, and people within the business that actually focus directly on sustainability as well to make sure that we're focusing on the right things.

One thing that I would say is a big enabler for us is Saint-Gobain has a goal to do 100% life cycle assessment of our products across the board. We have a team within my team that does nothing but life cycle assessments. They work with the businesses to be able to understand and quantify our environmental impact, and that gives us a little bit of a roadmap for product and process development to actually focus on where the biggest impact can be made.

Brendan Collins:

Well, as an EU headquartered company, does that emphasis on life cycle, is that motivated by European mandates, or is that something that you're pursuing worldwide?

Dennis Wilson:

Sure. It is something that we're pursuing worldwide, right? I'd say the origins of life cycle assessment were certainly helped along by some regulatory requirements in the European Union, but I think the company has fully realized the benefit of doing these studies to understand where that impact comes from, because it's not always obvious, right? We've found a lot of surprises. One particular raw material might be driving impact within a business that you might not have suspected and other raw materials that might have. We use a lot of that material for that particular product, but the emission factor for that product might be incredibly low. It really does give us that roadmap. I would say it's probably started with some mandates to do these things in some industries and other parts of the world, but it's really grown to be a company-wide worldwide goal for us. It's a 2030 goal for all of our products to have life cycle assessments there.

Brendan Collins:

There. Any particular success stories that you can share where perhaps a change was made in a product, or is that all too confidential?

Dennis Wilson:

I mean, I would say there's a lot of things that we've done over the years that were discovered by doing life cycle assessments, particular raw materials. Maybe it's transportation that's tied to a raw material that is coming to our plant, and just understanding the modes of transportation that are being used to bring that material to our plant, and then inner eating in our supply chain to try and change that mode of transportation to be able to bring down the overall impact. Could be a specific raw material that we've changed out for something, whether it's a health stressor or it's a emission factor stressor for that particular product. There are a lot of changes that we've made over the years in order to be able to reduce our Scope 1, Scope 2, and Scope 3 emissions.

Brendan Collins:

Does the company use a particular sustainability system or reporting framework that you find is well suited for the breadth of operations?

Dennis Wilson:

Sure. We are a company of a certain size in the European Union that for a number of years we were reporting to GRI using GRI criteria. The company's also reported to TCFD and continues to, we produce an annual report that also includes our sustainability, non-financial sustainability data as well, and we have some regulatory requirements at the Paris level in order to be able to do that. I would say over the years we have been reporting for years under these frameworks, partially because of requirements to do that and partially just because, again, there's a lot of value in the data for us to be able to understand where impact is and how we can go after it to be able to reduce that impact.

Brendan Collins:

Now, you mentioned that you're monitoring both, not only Scope 1 and 2 emissions but Scope 3 emissions, so let's talk about Scope 2 emissions for a moment. What is the company's approach to energy supply?

Dennis Wilson:

Yeah, I would say starting with getting as efficient as possible, our team as well as teams within our business, our world-class manufacturing programs are process sustainability experts across the company are really trying to get our facilities to a place where they are as efficient as possible before we look to do anything else. Beyond that point, we looked at things like renewable energy. Within North America, we've put in place a few very large virtual power purchase agreements, a large wind farm in Illinois and two large solar farms in Texas that have offset our CO2 emissions, our Scope 2 CO2 emissions by about 70% in North America. So pretty big number something that we're very proud of.

I'd say beyond that, we are looking for whatever we can in order to be able to reduce our Scope 2 emissions in particular. Another example, we just electrified a gypsum plant in Montreal, Canada. It is the second gypsum plant in the world to be Scope 1 and Scope 2 net-zero. The first was in Europe. It was the first plant. It was one of our plants, and we've done a similar thing in Canada, and as part of that, the plant is getting clean electrons from Hydro-Quebec. That plant is currently under construction and scheduled to start production here very, very soon. It's our Montreal plant, and it's something that we're very proud of being one of the first Scope 1 and Scope 2 net-zero plants.

Brendan Collins:

When you say gypsum, that's a wallboard product, is that?

Dennis Wilson:

Yeah, it's wallboard product. You essentially cook rock, right? So you're taking a mined product that you, calcine, so you're driving off any water, you are creating a certain crystalline structure, you're adding water back to that product. You're putting it, I'm very much simplifying the gypsum manufacturing process, but you put it in between paper to a certain depth and then you dry that product, you cut it, and you dry that product. In both that calcining step and in the drying step, you use large amounts of energy in order to be able to drive off water. Electrifying a plant is no small task. You're using quite a bit of electricity, but in the process of doing that, the plant is about 30% more efficient than it was prior to in the previous situation that it was in, where it was using natural gas, both for the calcining part of the process and the dryers.

Brendan Collins:

Well, congratulations on that. When do you expect that plant to be operational?

Dennis Wilson:

Very near future. Within the next couple months, the equipment is in and we're in a good place for production to start at that plant.

Brendan Collins:

That's wonderful.

Dennis Wilson:

Yes, thank you.

Brendan Collins:

Let's talk about how you sell that. What is Saint-Gobain hearing from its clients in the building industry that shows that they want that as a product, that that's a real product differentiator for the company and a competitive advantage?

Dennis Wilson:

I mean, I think we are more and more seeing customers interested in your environmental impact overall, right? You're starting to see in various places across the world buy clean legislation, which ties procurement specifically to reduced embodied carbon in building products. We are seeing more of those sorts of programs across the world. You have programs like the USGBC LEED program, the Living Building Challenge, these sorts of programs that are specifically set up to be able to reduce environmental impact that customers that are interested in building large commercial buildings often build these standards and finding a product that has lower embodied carbon is particularly interesting to them. We really think that this is the future of the industry and something that we're very proud to be able to bring to our customers. Very proud of bringing our customers and something that we think that will be a differentiator for us in the coming future.

Brendan Collins:

Are you in a posture where you are finding that your energy needs are increasing over time in the US, or are your efficiency measures able to blunt that growth?

Dennis Wilson:

Well, going back to what I mentioned about renewable energy, our focus is really on making sure that our processes are as efficient as possible, right? I'd say there's a few ways that we would do that. One is on the equipment side of things, making sure that we have good predictive maintenance programs in place that we're making good use of technology to diagnose when equipment might need to be changed out or updated, and then just doing things like burner tuning in the everyday work that the people in our plants do to make sure that our operations are as efficient as possible, and because of that, we see our energy needs in those plants go down. And then when we see those energy needs go down and we are in a place where we are as efficient as we possibly can be, then we start looking at what are the other options that we might be able to put in place to switch fuels to less carbon-intensive fuels.

Brendan Collins:

Are carbon credits and offset a part of the company's strategy in reducing its net emissions?

Dennis Wilson:

I'd say carbon credits and offsets are somewhat of a last resort effort for us. We would much rather spend the capital, spend the time of our people, making sure that our operations are as efficient as possible before we would go the route of purchasing offsets and carbon credits. I think there's a place for those instruments, but really the cheapest offset is the one that you don't have to buy because you've made your facility as efficient as it possibly can be.

Brendan Collins:

Now, you mentioned that your sustainability program at Saint-Gobain is part of a larger ESG structure. Can you give us some insight into how all those parts fit together?

Dennis Wilson:

Yeah, I mean, so we have science-based targets that we've set for both Scope 1, Scope 2, and Scope 3 emissions. Take us to net-zero by 2050. Our near term goal for 2030 was minus 33%, which we met this past year.

Brendan Collins:

Congratulations.

Dennis Wilson:

Thank you. But I guess the science-based targets are really, in our sustainability goals in general, we have raw material avoidance goals. We have the life cycle assessment goal that I mentioned before. We have water reduction goals. I think that those goals are really just good business. I mean, the more efficient that we can make our product from our processes from all of those aspects, the less that you are wasting valuable resources. I think our business, our strategy is, for us, as I mentioned before, to be the worldwide leader in light sustainable construction, and you can't be that by not being as sustainable a manufacturer as you possibly can. So it's again, one of the reasons why I work for Saint-Gobain. We're not only making products that help our customers be able to reduce their impact, but in order to differentiate ourselves, we have to be there as well. I'm not overstating when I say it is part of our DNA and it's part of our strategy.

Brendan Collins:

Is there anything on the horizon in the development of insulation products that would help improve the conservation profile of the as-built systems?

Dennis Wilson:

Yeah, I mean, we have been working on some novel circular economy programs around insulation. We have a program that we've put in place with a large developer by the name of Durst in New York City where we're taking building glass out of high-rise buildings in the city, and that building glass is being made into insulation. An interesting thing about insulation is when you use recycled material, recycled glass specifically, you not only reduce the carbon intensity of the raw materials that are going into the product, so the Scope 3 missions that are associated with that product, but it takes less energy to re-melt, recycle glass. You can reduce the overall CO2 footprint of that glass by about 40% by us being able to bring it back and put it back into our installation plants and make installation out of it. An exciting thing that we have going through our circular economy business that we are looking to grow across the board and we're looking for partners to help us be able to grow that.

Brendan Collins:

You mentioned a company-wide goal to get to net-zero by 2050, and you've already met your 2030 goal, so what are the key challenges that remain for Saint-Gobain to reach that net-zero goal?

Dennis Wilson:

Yeah, I think we've done pretty well from a Scope 2 perspective, as I've mentioned, and I think we will continue to do that and make our factories as efficient as they possibly can be. One of our challenges is the availability of clean energy for our facilities. We currently use a fair amount of natural gas to do things like melt rock and melt sand and cook rock. The availability of clean energy for us to be able to do that is one challenge that we have.

I'd say the other challenge that we have, and I think virtually everyone has is Scope 3 emissions. Getting to net-zero for Scope 3 emissions is very challenging because you're reliant on the efforts of others. We do a lot of things in order to be able to reach up and down our supply chain to make sure that the materials that we get are as decarbonized as they possibly can be when they come to us, but you're still reliant upon the efforts of others. I'd say that's our challenge, but that's everyone's challenge in the sustainability space is how do we make sure that the materials that are the base of how we make all of our products are as decarbonized as possible.

Brendan Collins:

Are there any accomplishments of your program that you're particularly proud of? I can give a chance to brag on and we'd love to hear about them?

Dennis Wilson:

Yeah, I mean, a few of them I've mentioned already the progress that we've made from a power purchase agreement perspective, those at least the first deals were pretty novel whenever they were first put in place, so we made really good progress there. I'd say the thing that I'm most proud of, and the thing that I'm most excited about working on as we go forward is really our circular economy business. We have set up our circular economy work as a business from the beginning because we believe that's what it will be. It will need to be in order to be successful. Really only about 7% of the global economy is circular at the moment according to the latest circularity gap report, and so we have a long way to go. We're fighting against 150 years of supply chain optimization that puts materials in a landfill, the end of its life.

We're doing a lot right now to be able to understand what are the missing parts of that reverse supply chain that can bring a material back and put it back into our product. We've done this with gypsum. We've recycled millions of pounds of gypsum, millions of tons of gypsum to be able to put back in our products. We've recycled millions of tons of glass to be able to get recycled and put back into our products. How do we do that for the rest of our products? We've got some technology to be able to grind up shingles and be able to put them back into asphalt roads. I'm most excited and most proud of these accomplishments because circular economy is very hard, and we're doing our best to be able to make sure that we can, from the very beginning, run our circular economy efforts as a business, which I think will serve us well into the future.

Brendan Collins:

It seems like it might be a good place to leave it, but I was going to ask you, is there anything that you can tell us about the increased focus on plastics regulation and plastics recycling that would be relevant to Saint-Gobain's business?

Dennis Wilson:

Well, so we have a siding business. We have a vinyl siding business, and as part of that business, we have a lot of circular economy efforts focused on being able to get siding back into our plants and be able to be made back into siding. We have an active program right now where we are working with contractors to place bins in certain locations to be able to bring that material back. It's a program called Build Circularity. It's, I would say very much in its early days, but we see that as a longer term program that we hope to be able to grow and be able to get siding material back into siding material.

Brendan Collins:

Well, I mean, it's really, none of this matches up with how we demolish structures. If you're talking about that, everything goes in a dumpster and it's very difficult, just like it is for single-screen waste collection at the municipal level, it's very difficult to get somebody to go through that dumpster basically and pick out the pieces of siding and drywall and wire and everything else.

Dennis Wilson:

That's true, but I also think there is an art in, and I'll go back to this example that I gave about glass recycling in New York City with The Durst organization. It's a art of scheduling, right? So being able to remove windows from a high-rise facility and get that material back to a recycler that can get it to us and make insulation out of it is really an art in scheduling, and we've been able to make it work with the help of our partners at a cost-neutral point. I think we have come to

accept the fact that we have one dumpster on site and we just throw it all in there, and this is that what I mentioned before about the inertia of the linear economy.

We've been fighting against this for 150 years of it's just supposed to go into the dumpster. Well, it doesn't need to go into the dumpster, and it doesn't need to go all into the same dumpster. We can work to figure it out to logistically get it back to the right places at the right time and not have to do the separation step. Those are the sorts of things that we're focused on in our circular economy business to really try and get it to a point where it's cost-neutral to the same old way of doing business that we've done business for 150 years.

Brendan Collins:

Thank you, Dennis.

Dennis Wilson:

Thank you.

Brendan Collins:

It's been a fascinating presentation. It's terrific to hear not only what you're doing in terms of the accumulation of data for sustainability reporting, but also the active work you're doing on the factory floor to change the footprint of Saint-Gobain's many operations and products, so thank you for that work.

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