



Origin Materials, Inc. (Nasdaq: ORGN)

Investor Q&A Fireside Chat, October 9, 2024

The following is an unofficial, uncertified transcript provided solely for convenience, and may contain errors, omissions, or computer-generated mistranslations resulting in inaccurate or nonsensical word combinations.

Participants

Ryan Smith, Chief Product Officer and Co-Founder

Rich Riley, Co-CEO

John Bissell, Co-CEO and Co-Founder

Matt Plavan, CFO

Ryan Smith: Hi, everyone, and welcome to our mid-quarter investor Q&A video. Today, you're going to see a shift in our investor relations efforts. Namely, we want to focus the investor relations conversation on Origin's path to profitability, caps and closures. So we won't be discussing Origin's biomass conversion technology platform, furanics, this time. But rest assured, we'll update our investors about furanics when we have something meaningful to share. We also want a lively and concise discussion, so we're going to answer the most relevant questions rather than attempt to be exhaustive. The result should be informative and focused on the topics most relevant to Origin investors and focused on our path to profitability.

We received a lot of questions trying to understand our caps business—questions about economics, long-term vision, plans for setting up multiple caps lines, revenue generation, and expansion into new product areas. So, we're going to deliver a sort of caps business 101 today and talk about what this business looks like and why we're excited for it.

First, Rich, if I can ask you to give us an overview. Why is the caps business attractive as an investment, and what can we expect from it?

Rich Riley: Sure, happy to walk through that. I think at the highest level, it's a very big market—over 65 billion dollars and growing. And what's fortunate is that this market has wanted PET caps for a long time. So there's pent-up demand. You don't really have to sell it like you would if no one had ever thought of something before. So they really wanted this. One of the reasons they've wanted this for a long time is because a lot of these packaging decisions that involve marketing, procurement, R&D, and manufacturing, often, they have to make really difficult trade-offs—performance of the material,



price, sustainability. Does a decision require changing a bunch of other things? What's nice about our product is that you get a big increase in sustainability, an increase in performance, it's drop-in so you don't have to change anything, and it's all for a reasonable price.

So, when you look at the way these companies are managing their packaging strategy, this is a pretty easy one, relative to a lot of the other decisions that they face. It really helps them improve performance and dramatic increases in sustainability—something you typically don't get without making a lot of changes to your process. So that's really attractive.

For us, to be able to go into that situation with a highly differentiated and proprietary product is really attractive. I think of it as having product-market fit—this market has wanted exactly what we're bringing it and we are uniquely positioned to bring that product. So that creates a really exciting setup for us to go into scale-up. You've seen us talking about ordering the machines and scaling into this market, which has relatively short timelines to scale, relatively straightforward scaling, and attractive economics. So we're very focused on execution, and I think the next 6 to 12 months will be a very critical execution phase as we bring these caps to market.

Ryan Smith: Got it. That's a helpful overview. We received some questions specifically in that same vein, but asking about the biggest hurdles you face in the demand side. I'm just going to read one of them directly because I think it encapsulates it.

The investor asks: "Rich, it sounds like demand for the company's PET caps is through the roof, and it will be a real challenge to address it all. With that incredible demand in mind, what would you say is the biggest hurdle for potential customers to actually sign on the dotted line and become customers? Do they want to see more trial runs? Are they afraid the company won't be able to address their demand needs? Is more testing required? It will be good to get your thoughts. Additionally, it would be great to get your thoughts about hurdles for potential licensees that they want to clear before they are comfortable signing licensing deals as well."

Rich Riley: Sure. At a high level, we're confident we'll be able to sell every cap that we can make and that there's just enormous demand out there. I would say, just like I was saying people have wanted this for a long time, they've also been told it's impossible for a long time. If you're involved in buying caps or making caps decisions, you've likely been that, by someone you trust, that it's not possible.

That create a natural level of skepticism, and it's one of the reasons we have been very transparent in bringing prospective customers along on the technical journey with us, including attending trials and standing shoulder-to-shoulder with us as we go through this process. I think they're all very encouraged by what they've seen. It was a big announcement when we announced our CapFormer Factory Acceptance Test recently.

I think being actually up and running is the ultimate milestone for customers to enter into binding contracts to buy caps. I think that's the biggest. The other one is, it's a big cap market. We're coming to market with two particular products—the 1881 and the 1881 tether—and a lot of customers are approaching us wanting other cap formats. Different sizes and things like that. And so we're going through the process internally of figuring out which one comes next and prioritizing that. For some customers, that's a little further away than the 1881 launch, which is imminent.



John Bissell: If I can jump in here as well, there are a lot of what I'll call minor features—not to undersell them—but not at the level of what Rich was talking about, in terms of tether or 1881 formats—but smaller features that are still important to our customers. Optimizing some of those features for particular customers is something we think about quite a bit, too.

As a consequence—with Rich's comments, people have said this is impossible, or at the very least it's unrealistic to expect a PET cap—getting those caps with that particular feature from a production level line that we can give to customers so they can trial them on their own lines, that just takes some time. And it's something that is really important for these customers. They really don't want to see their lines go down because the cap wasn't trialed long enough, or even to slow down because the cap wasn't trialed long enough, those kinds of things.

The synchronization of the lines operating with all of the different components they want to see—that is contemporaneous with execution of the final offtake agreements for a lot of these things, in our expectation.

Ryan Smith: Full qualification process. I want to circle back to the other part of the question and ask about licensees. Is there anything you want to say there, Rich, or John, about the role of licensees and how that figures into the aperture of Origin's strategy and approach to deals?

Rich Riley: Yeah, licensing conversations are active. We think that's a great way for us to get to market fast and very capital-efficiently. It's sort of a similar process, in terms of going through all the various trial processes.

We even have some potential customers connecting us with their current suppliers and encouraging us to do that because they like having multiple sources. It's one of the ways for us to be a multi-source provider is to both have it coming from our manufacturing and from licensed manufacturing. So, things continue to progress nicely.

Ryan Smith: Great. All right. I'm going to transition to some questions that came in around the financial performance of the lines. Matt, the next couple of questions are probably for you, here.

This first question is about revenue. Essentially, how much and when? They're specifically asking what is an optimistic scenario for revenue and the possible timeline?

Matt Plavan: Yeah, that's a good question. Thank you. We've given bits and pieces of revenue guidance. Let me see if I can pull them together and paint a broader macro picture.

The first revenue guidance we gave was back earlier in the year when we indicated that we were ordering a number of CapFormer lines, with a revenue range between \$45 and \$60 million for those lines up and running at full productivity. We also then announced one of our customer deals, that was the first two years of the arrangement, and we characterized it as over \$100 million in revenue, with a portion coming in 2025, but the majority being in 2026.

Of course, we expect to have more than a single customer. As we enter 2025, we expect that customer with others—some of similar size, some smaller depending on the product format. Clearly,



we're going to have to add lines beyond the first few we announced to the production capability in 2025 to manage that size of production for those customers.

And as you look forward, 2026 and 2027, with that quantum of revenue per customer, we're expecting once we're at scale in 2026-2027, we're talking about hundreds of millions of dollars in revenue from the 1881 and other formats that we'll bring to bear over that period of time.

So, we haven't given really specific guidance, but you can get a feel that we're starting in 2025 with a ramp. By the time we hit 2026, there will be a nice steep trajectory, and in 2027, we'll reach significant scale of caps production. As we get further into 2025, I think we will be in a better position to share even more discrete elements of the revenue and how to think about how that business will grow over time.

Ryan Smith: Great, and then the other question pertains to financing the lines and also asks about return on invested capital. What are the expected economics around the capital cost of the lines?

Matt Plavan: You know, the CapFormer Systems are off-the-shelf equipment that has been around for a very long time. It is very well established in the market, as thermoforming has been for quite some time. Very financeable. And, you know, we aren't going to give specifics in terms of an ROIC on it, but I can say it's a very attractive return, and therefore we don't anticipate any headwinds with regard to financing those as we scale up the manufacturing capacity.

Ryan Smith: Great. Thank you. And kind of a perfect segue into the next question I wanted to ask about, specifically you John. You know, we released the video of our CapFormer System, showing our system producing caps at commercial speeds. We've received several questions asking about production volumes and how we'll be scaling the system, in particular.

So, a couple of questions here. First, in the near term, what do you see as the limiting factor in scaling caps production? For example, manufacturing the equipment, capital investment, demand? What's the limiter?

John Bissell: Yeah. So there are quite a few that are clustered together, in terms of limiters. But I think the first one that we're addressing in real time is capital availability, right? We have a variety of ways that we're addressing that. One is by setting up good financing structures for these lines—and we've talked about this before—but making sure we have our own equity capital and cash available to provide financing and to be the delimiter on some of those things.

Besides capital, another relatively closely coupled thing is our ability to execute multiple projects simultaneously. You know, if you think about these lines, each one is sort of a mini capital project. The "mini" part is in the context of the other kinds of capital projects we've done. So each one requires time, effort, and focus from our existing team to execute successfully. Increasing our ability to do multiple capital projects simultaneously, or many capital projects simultaneously, is another thing that just takes some time to ramp up that capability.

So I think those are the two that are most closely clustered. We started out worried about something that I think won't come into play for some time, and there is plenty of time to ramp up the capacity here – is on other equipment suppliers. As you were commenting, there are other equipment



suppliers that provide the equipment we use to make these caps. They have their own production capacities. At first, we had thought that might be an early limiter, but it looks like they have quite a bit of capacity, so we're excited to expand into that capacity over time. I don't think that will be a major issue for us.

For us, it's mostly capital availability that limits rate, and then we need to ramp up our internal ability to execute multiple projects simultaneously.

Ryan Smith: Got it. So with respect to the capital availability and our ability to execute multiple projects in parallel, could you give us a sense of a short-term, medium-term, and long-term view? What are the company's ambitions in terms of creating more caps lines in parallel and scaling up and expanding out? What does that look like?

John Bissell: Yeah. I think consistent with Matt's comments around getting to EBITDA positive as a whole, as a company, we have a very reasonable plan for executing these capital projects over the next 18 months that gets us there. Looking beyond that is hard because you start to decrease the limits that are provided by time.

How quickly can we get access to more capital? For a profitable company growing quickly with good EBITDA margins, you can get access to large amounts of capital, so we shouldn't expect that to be a limiter. Similarly, over an 18-month to two-year period, I think we can increase our ability to do capital projects in parallel quite substantially, so that shouldn't be a major limiter either.

At that point, it becomes more of a demand question—how quickly can we address this demand, either with the same formats going to new geographies or by increasing our manufacturing production volume and coordinating that? Licensees? That's why we're excited about this, in part; there's such a large market for it, it's hard to see what the limiting feature will be two years out. It doesn't look like it'll be demand, it shouldn't be capital, or our ability to execute capital projects simultaneously, it shouldn't be the equipment suppliers. I think something will be, as we get closer, we'll have a better view of what that is, but on paper, it doesn't look like there's something that should be limiting our growth rate meaningfully in the two-year-plus time horizon.

Ryan Smith: That helps. We had questions asking, what is the volume of PET caps that can be produced using a single manufacturing line?

John Bissell: So we haven't talked about some of the specific unit economics around each one of these. There's a reason for that. Part of it is that we'd like to see some of them operating for a little while before we start to forecast using that or have external people forecast using that. Another is because we want to control the information and knowledge around this as much as we can for as long as we can. We know we can't do that forever—not even close to forever. And at a certain point, we're going to need to give pretty clear economic indicators around how these lines operate and how they behave economically. But, we just don't think it's the right time to do that yet, so we're not ready to give those kinds of numbers. But I would say, we're in this sort of general ballpark of what you'd see for caps production from lines using existing technology right now. It's not a 10x difference in either direction or something like that. It's roughly similar.



Ryan Smith: Got it. Okay, fair enough. And then we had some questions asking about Reed City in North America versus Bachmann production in Europe, asking the question: Is the focus of the European lines different than the Reed City lines? Are they making the same product?

John Bissell: So, Rich talked about two different formats that we're introducing initially. There's the 1881 format and the 1881 with tether format. The European regulatory requirements are such that we need a tether on the cap, so it'll be 1881 with tether in Europe, and 1881 probably without tether in the U.S. One of the nice things about this kind of technology is that you actually can change the mold that's running on a given line. You may not want to do it all the time, but it's not a huge project to swap out what format is being produced on a given caps manufacturing line. So, we have some flexibility in exactly how we roll those kinds of things out in different geographies once we have a format developed.

Ryan Smith: Right. And the next question is about new products, a little more generally. They ask: "John, one of Origin's goals is to have a completely recyclable PET bottle. Your PET caps solve the cap issue, leaving just the label. So one would assume there's an active effort toward a PET label. Can you tell us where you are on that endeavor? If you're pursuing that?"

John Bissell: We've thought about the same thing, obviously. We have some thoughts on how we can address that. I don't think we're ready to talk about those as an independent program at this point. We think that solving the caps problem is harder, and once you solve the caps problem, the pressure to solve the label problem universally is higher. We sort of see it all going in the right direction. If you solve PET caps first, then I think the label will come.

Ryan Smith: Great. Alright, last question, John. An investor asks: "When am I going to see this product on store shelves?"

John Bissell: Well, it depends on where you live, what products you buy, and what stores you go to. But, as we've communicated, we expect to see revenue in Q1 around this. The transit time for a product like this in the supply chain is not that long. So, I think conceivably, people would see this product on store shelves relatively soon. That's one of the things that's so exciting about it.

Ryan Smith: Right. Alright, and then an investor asks—this is kind of for the group—maybe I'll direct it to you, Rich, or anyone else who wants to chime in, but just generally: As an investor, what should I get excited for in the coming quarter?

Rich Riley: Well, there's a lot to be excited about in the coming quarter. You know, generally, we have line of sight to profitability, which is a huge milestone for us as a company. That's not happening in the coming quarter, but big steps along that journey are happening in the coming quarter. As we go into commercial production of our first CapFormer System, that's a big moment on that journey. I think that unlocks a lot in terms of the scale-up process here. I don't want to oversimplify it, but it's largely copy-paste in nature versus having to keep building bigger and bigger things. There are some neat levers within that process where you can get more efficient as you scale. But, generally speaking, once you have one system fully working at commercial scale, you've crossed a big milestone, and now you get to do a lot of copy-pasting effectively to scale up.



So, in the coming quarter, we expect to cross that milestone. And then we continue to make a lot of progress on the customer side, on the deployment side, and we're just really focused as a company. You've seen us shifting resources, shifting focus, and we've got an exciting quarter and a transformative 2025 in front of us.

John Bissell: I might make a comment, not just on the next quarter, but over the intermediate future—the next year or less, something like that. And I think some of the really exciting things are that we can keep using our deep materials and chemistry expertise to improve these caps, extended to other formats, right? We just talked about the 1881 and 1881 with tether format. But there are lots of other formats out there, and they have, you know, different unit economics, which can be really exciting.

But I think, you know, I was actually talking to a Fortune 100 SVP of R&D recently that we work with, and it was really exciting to hear how valuable they thought that materials expertise was around caps. Their comment was that it's surprising how thin the material science capabilities are at a lot of the existing players in the plastic parts world. They tend to be extremely empirical and not have a lot of theoretical depth.

And so I think that's one of the unique—first of all, that's really what allowed us to develop this in the first place, when other people had failed. But I think it gives us a lot of design space and capability that we have access to with this kind of product. So, I think I'm excited to keep using that over the next year, to find exciting new products and exciting applications to bring those products to.

Ryan Smith: Great. Well, that was excellent. Thanks, you guys.