

Sterile Drug Manufacturing – Demand, Evaluation Criteria & Consolidation – 17 December 2020

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Title: Former Senior Director, Global Alliances, Pfizer Essential Health Sterile Injectables at Pfizer Inc

Moderator: Mikaela Franceschina (MF), Third Bridge Sector Analyst

Agenda:

1. Trends and competitive landscape in the sterile drug manufacturing segment
2. Impact of coronavirus and biologics on the demand for sterile drug manufacturing
3. Effects of M&A in the biopharmaceuticals segment in sterile drug manufacturing
4. Evaluation criteria of sterile drug manufacturing CDMOs (contract development and manufacturing organisations)
5. 2020 growth and competitive outlook for 2021 and beyond

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Sterile Drug Manufacturing – Demand, Evaluation Criteria & Consolidation

Transcription begins at 00:00:04 of the recorded material

MF: Welcome to Third Bridge Forum's Interview entitled Sterile Drug Manufacturing – Demand, Evaluation Criteria & Consolidation. I'm Mikaela Franceschina and I'll be facilitating today's Interview with Dorene Lynch, former Senior Director of Global Alliances and Essential Health Sterile Injectables at Pfizer.

Dorene, before we start today's Interview, please state I agree or I disagree to the following statement: You understand the definition of material non-public information and agree not to disclose any such information, or any other information which is confidential, during this Interview.

DL: Agree.

MF: Thank you, Dorene. Could you please begin with a brief introduction to your background?

DL: I spent the most recent five years at Pfizer. Actually, I started with Hospira and then Pfizer acquired Hospira in September 2015. Of my time there, I spent four years working in the embedded contract development and manufacturing organisation of Hospira, then, of course, Pfizer. It's now now as CentreOne. I had two roles there. My first role was Head of Business Development, where we brought in new projects from other third-party biopharmaceutical companies into our selected sterile injectable manufacturing plants. I interfaced with about 500 of my colleagues in the manufacturing division around the globe. We worked with a little over 10 factories around the globe and manufactured drugs for our third-party clients. I, then, after leading the business development team, I moved over to leading the account management team and we had responsibility for managing the relationships for our consumers. These are customers that had moved past the development phase, they had launched their drug and were successfully manufacturing batches day in and day out. We interfaced with them and managed the relationship and tried to grow the relationship, bringing in additional new products into our network. After that, I moved over to business development within Pfizer and I had responsibility for Pfizer's own USD 6bn sterile injectables portfolio and my responsibility was to lead business development transactions for drug assets for the portfolio or drug delivery devices or other tools to aid our R&D and product development teams with Pfizer portfolio products. I don't know how far back you want me to go. That's my most recent five years. Prior to that, I spent 25-plus years working in life sciences over my career.

[00:03:16]

Q: What is your overall assessment of the coronavirus impact on the sterile drug manufacturing segment?

DL: It's twofold. One is there's demand for vaccine manufacturing, however, those factories that manufacture vaccines are dedicated and they are not mixed use. There will not be other drugs being manufactured side by side that aren't vaccines. There's obviously demand for vaccine manufacturing, but I also am aware that there has been a lot of demand for hospital-used sterile injectable drugs in general, because of COVID, hospitalisations have increased tremendously and the drugs that are used in hospitals, typically, through IVs, the demand has been really increasing for those drugs. The impact is twofold, one on the vaccine front, the other on just regular hospital injectable use.

[00:04:36]

Q: Non-sterile drug manufacturing dominates the CDMO [contract development and manufacturing organisation] industry, but sterile drug manufacturing has increased significantly and is expected to grow at a higher rate. What are your market growth expectations? To what extent do you think it will continue to increase?

DL: The sterile drug market has been increasing for probably a decade now and it's largely driven by biotech and biologics because most of them are large-molecule format and they do require injectable format for those kinds of drugs. Biotech, in general, has been driving demand and the new biologic drugs that have been dominating what new drugs are being launched and coming out have really been pushing demand up for sterile injectables. That will continue as we move from small-molecule drugs into more biologic-origin drugs, it will continue to push demand sterile injectable manufacturing up.

[00:05:58]

Q: Could you break down the main challenges with manufacturing sterile drugs vs non-sterile drugs?

DL: It's tremendously more complicated to manufacture sterile drugs. Most regulators, including the FDA, would prefer if drugs could be sterilised, so terminally sterilised either using gamma irradiation or other forms of final step sterilisation. The problem is that, for example, biologics and many small-molecule drugs cannot withstand the gamma irradiation, or final steam sterilisation or any other sterilisation step. These drugs have to be filled aseptically. Aseptic filling is probably one of the most challenging manufacturing types of all of manufacturing. Basically, sterilisation is achieved by maintaining a clean environment, and that's air, surface, contact with human beings, and then putting the liquid through a series of filter steps in order to remove any impurities. That's how sterilisation is achieved. It's incredibly complex to maintain an aseptically sterile environment and most regulators, again, including the FDA, would prefer no human contact in the room where these drugs are being filled. That's a really challenging endeavour because there are always things that happen during manufacturing, for example, tipping of vials, or glass breakage or the machine, somehow, things get stuck. It's not unusual for human intervention to be needed, but I think regulators would prefer if there were none, which would be incredibly challenging. It's just a very complex type of manufacturing and it's very complex to try to maintain sterility in an aseptic core.

[00:08:47]

Q: What ongoing measures have been implemented for sterile manufacturing quality control?

DL: Again, I think most regulators would prefer if filling occurred in an isolator, which means it's completely sealed closed while the filling process is going on. I would say another, maybe less desirable from a regulatory perspective, but certainly practical from a manufacturing perspective, would be the use of Rabs, which are rigid barrier systems, but they can be opened, if needed, if an intervention is needed. As I said before, if something occurred during manufacturing, Rabs does allow for a human being to interject and to correct the situation and then to allow fillings to continue. I'm going to go back to what I said earlier. The issue with continuous processing without any human interventions is if something occurs, which, inevitably, it does, like glass tipping or any number of things like that and it was a completely isolator or closed system, the line would have to be shut down and any of the material that's in process, in the line, would be lost. When it comes to biologics, that could be USD 1m worth of bulk drug substance that could get lost. That's the real fine balancing act, is keep the manufacturing lines going, but maintain that aseptic sterility, minimise any human intervention as much as possible. It has been my experience working with our manufacturing colleagues that they would prefer Rabs over an isolator because isolators, it's just very difficult and you would lose product if

you had to shut the line down for any period of time or to do some major intervention.

[00:11:29]

Q: What criteria have been used to evaluate sterile drug manufacturing CDMOs? Have these criteria changed during the pandemic?

DL: Generally speaking, in my experience, when I worked with product development teams and we were looking at new CDMOs or evaluating CMOs for a sterile project, first and foremost, would be the quality reputation and their quality track record. What I mean by quality would be a combination of things. What was their regulatory inspection history for the last five years? If we were dealing with a global drug that was intended to be commercially sold globally, we'd want to see multiple different major market regulatory agencies that had done routine inspections and that there were no major findings from those inspections. We'd want to see a very strong track record in terms of regulatory inspections. We'd also want to see that there were no disruptions due to compliance issues, an excessive amount of investigations that were occurring on a routine basis. Investigations happen when the process isn't perfect and/or the end product isn't perfect within specification. That opens up an investigation and so we'd be looking at that. For Pfizer, our reputation was everything, so we absolutely would not want to work with a contract development manufacturing organisation that could potentially sully our reputation by having quality issues or disruptions in production, disruptions in supply. First and foremost, always, would be quality and all of those things I just described. We'd also be looking at financial stability of the organisation. If they had to invest in new equipment or new processes, could they sustain that? Did they have the financial depth and sustainability to be a good partner?

We'd also look at environmental health and safety practices. For example, Pfizer has made commitments to the World Health Organization around corporate responsibility and that means no employing child labour, no colluding, a number of different worldwide health commitments. We would be looking at is the CDMO, for example, discharging waste material into a local water stream? I can tell you from my own experience, even if, let's say, they were doing that and it was within the regulations of that particular country where they're manufacturing, we would still have a problem with that and we would seek for that to be fixed or we could not work with that partner, so really strict on environmental health and safety and then just high reliability. Of course, an organisation like Pfizer has hundreds of contract manufacturing relationships or relationships with hundreds of manufacturers, contract manufacturers. There's an advantage to being an incumbent, in that Pfizer would have experience, first-hand knowledge about how reliable the partner is, dependable. Incumbency, I think would be important. Lastly, geography, I shouldn't say lastly, cost, of course, is last, but it's a factor. Maybe second to last would be geography and that is it's so important for sterile injectables, so, for example, if the drug was considered a controlled substance in the United States, for example, it could not be manufactured outside of the United States because it would be very difficult to bring that drug in because it's considered a controlled drug. Geography does matter and we would consider that. Also, if it was a large cell, a large format type of parenteral, shipping costs, that gets the geography, it could get very expensive trying to move heavy water long distances.

Also, I should say there are also temperature, humidity requirements, especially for biopharmaceuticals. We're all hearing about this now with the COVID vaccines, but sterile injectables have their own sets of requirements in terms of humidity, temperature exposure, sometimes light exposure and that would factor into the whole supply chain and logistics of where you'd want to manufacture the drugs. Then, costs would be a factor. I remember you asked me about solid oral dose. We talked, in the beginning, about the high demand for sterile injectable manufacturing and there is not enough supply of sterile injectable manufacturing. There is an overabundance of solid oral dose manufacturing capacity. It makes for a real commodity market. Solid oral dose drugs are, from a contract manufacturing standpoint, not very profitable, very competitive, because there's a host of manufacturers who can make those drugs. Unless it's highly differentiated technology or capability, it's truly a commodity with excess of supply and not enough demand for all that supply.

[00:19:49]

Q: Would you say it is preferable to use a full-service or a specialised CDMO, given the transfer problems that could arise with contamination?

DL: When I worked in the contract manufacturing business, we made drugs in a mixed-use facility. We did not make live virus or live organisms, that kind of thing, but we made Pfizer drugs next to contract-manufactured partner drugs. The very first criteria in choosing a CDMO is their technical shift and so that means can the CDMO handle the type of drug, the size of the dose, the container that the drug is going to be in and do they have experience in doing similar types of drugs. I would say there's a lot of sensitivity around confidentiality. At least in my experience, the third-party biopharma companies did not necessarily want to go to the CDMO that made their competitor drug, but they wanted to know that you have the capability, the technical capability to handle their drug. You had to be able to prove that, yes, we can handle that viscosity, we can handle any number of different technical attributes to make the drug, but they were, at the same time, like I said, concerned about confidentiality, so they wouldn't necessarily want to know that you were making another exact or similar drug, at least that has been my experience with sterile manufacturing.

[00:22:34]

Q: Can you assess the CDMO landscape for sterile drug manufacturing, highlighting key players, strengths and weaknesses?

DL: The top players would be Patheon, Catalent, Baxter Bio Solutions, Vetter, Recipharm, Avara, of course, Pfizer CentreOne. Then, there's a number of lots and lots of small ones. Certain geographies are a little bit more crowded with smaller sterile CDMOs, for example, Europe. There are a lot of smaller sterile injectable CDMOs and let me explain the reason for that. Years ago, when pharma companies wanted to market their sterile drugs in different countries, often, at times, there was a regulatory requirement that the drug be made in-country. Once you're harmonised in so many ways, then that gave pharma companies an opportunity to right-size their manufacturing footprint, so they did not need to have a little factory in every single country, they could move drugs from one country to the next quite easily. They ended up right-sizing the manufacturing network, selling off manufacturing plants and, then, often, at times, those became CDMOs, they were bought up by CDMOs. Europe is very much crowded with smaller CDMOs vs the US, for example. The major players, Patheon, really good quality reputation, global, lots of different capabilities. I do want to say, though, when CDMOs are being evaluated by third parties, it's really the specific factory. Even though Patheon and Catalent, they're major global players and they have a number of different factories with some unique capabilities in each, yes, there's more familiarity with their name, but, in the end, the valuation is going to be about a specific one of their plants, not about, "How are they as a corporation?" It's going to be, "We're considering their Milan plant, so let's go evaluate Milan," and it'll be very specific about that plant. It's nice to know that these are major corporations, they have some financial stability, which can be very important. They have a reputation and there's an indication of whether they have systemic quality systems and quality approaches because they've got a good-standing quality reputation. That would be my evaluation of Patheon and Catalent. Both of them, they're strong global players.

Vetter, I mentioned, is absolutely the CDMO to go to if you have a pre-filled syringe product. They're just really good with pre-filled syringes, top quality reputation, just flawless. They can be difficult to work with, they are pricey. They're expensive, they can be difficult, very dogmatic, it's going to be their way, things will be their way, but they really are just great. They're just a really great CDMO and especially for pre-filled syringes. Baxter has two advantages. The first one would be the Halle plant, which is in Germany and that one does cytotoxics. There really aren't very many sterile CDMOs that do cytotoxics. For example, I would get calls from different parties asking, "Do you guys do cytotoxics?" and I would refer them to Baxter. They're really good there and they, too, they have a manufacturing facility in the United States. They can do pre-filled syringes really well, too. Let's see. Who else did I say? Recipharm is a European CDMO. They're pretty well-respected in Europe. Let's see. I'm not going to really comment on Pfizer CentreOne. They're one of the top sterile injectable CDMOs, but that's my former employer, so that's about all I can say.

[00:28:33]

Q: Which CDMOs other than Baxter do cytotoxics? Why is it difficult to find good quality, like Baxter's?

DL: I can't think of anyone off the top of my head for cytotoxics. The demand for cytotoxics is not tremendous. As we get into more personalised medicine and more regenerative medicine for treating cancers, there's maybe less dependency on cytotoxics. I don't know that it's a growing field, but part of it is environmental. They have been manufacturing cytotoxics at the German plant for years and years and have a proven track record of quality, as well as environmental health and safety. Starting up a cytotoxic plant just anywhere, as I said, it's difficult from an environmental standpoint, because you are dealing with something that a lot of countries, a lot of regulatory bodies don't necessarily want in their backyard, even though they're important drugs that are being made. I think, yes, I can't think of anybody else that does a good job with cytotoxics and Pfizer has some.

[00:30:28]

Q: Thermo Fisher recently expanded its sterile drug development and commercial manufacturing at four sites in the US, UK and Italy. To what extent do you think this will continue across other players as sterile injectable demand rises?

DL: Thermo Fisher is Patheon and when I said Patheon, they own Patheon. Thermo Fisher, I think it's interesting that they're expanding in the US and Europe. That could be, although this is just my speculation, that could be as a result of, for example, COVID and the fact that it originated in Asia. There may be more companies that want to have a contract manufacturer outside of Asia. I don't know, that's some speculation, but I think that's interesting that that's where they're choosing to make investments. There's not enough capacity period for contract manufacturing sterile drugs, so it's a great opportunity for Thermo Fisher to increase their capacity and capability. It's great for the market because, again, it's needed, but it is an expensive endeavour to do that kind of an expansion. Again, that comes back to my earlier comment about financial stability and depth of these CDMOs. Can they make an USD 100m investment in a plant to make it more contemporary or to add additional capacity or new filling lines and what not? I think that's great for Thermo Fisher, great for the market.

[00:32:40]

Q: Are more players choosing contract manufacturers over in-house development for sterile drug manufacturing? Can you discuss the limitations of using a CDMO vs in-house development?

DL: As I said, what drives demand for sterile drugs is biologics. Most biologics are being innovated by small to medium biopharma companies and those companies do not have manufacturing capability typically. For that matter, they necessarily have the regulatory or commercial experience either. They depend on contract development and manufacturing organisations that can fill the gap for them. I would say if it's a large company, a large biopharma company that has their own manufacturing footprint, so like Pfizer, for example, they have a sterile injectable manufacturing footprint. For new projects, new biopharma R&D projects and portfolio projects, they would most likely make those in-house. If it's a generic sterile injectable then they could be open to a CDMO, but I would say anything innovative is going to be made in-house, but the majority of what's driving the market are new biologics and biopharmaceuticals, so they need CDMOs, they don't have an option to make it themselves. It was interesting, when I worked in Pfizer's contract development and manufacturing organisation, most of our new products, new customers, would be small to medium biopharma companies. When drugs became successful and they were commercialised, at times it was an astronomical number of the small biopharma products and/or companies that we worked with from a contract

manufacturing standpoint, would be acquired by a larger biopharma company. We'd end up with big pharma as our customer, whereas it started originally with some small to medium biotech company.

[00:35:33]

Q: Can you discuss the industry's typical outsourcing rates and the proportion you would say is outsourced in the US and overseas, particularly in APAC?

DL: I think if you look at the overall cost of goods sold for a major pharma company, probably USD 0.25 of every dollar of cost is outsourced, is manufactured with a third party. I think that's pretty typical across most of the big pharma companies. The Head of External Supply for Pfizer has gone on the record publicly at industry events saying that Pfizer has something like 300 or 400 contract manufacturers that they work with and that would be across all platforms, not sterile, but all the different platforms. There's a significant amount that is outsourced and there are a few reasons for that. One would be business development and that is we would acquire assets, drugs that had an established supply chain and maybe they were a small company using a contract manufacturer. We would simply inherit that through a business development transaction and if the supply chain was working well and there was no disruption, there's a disincentive to move manufacturer from one plant to another. It's expensive, it takes a long time. It takes, at a minimum, two years to do a tech transfer and it's expensive. It's very measured in terms of how often we would do a tech transfer. You'd inherit a lot of CDMOs. From time to time, especially with as drugs age, the lifecycle starts to get older, let's say we were manufacturing some sterile drug within one of our factories and we needed capacity for a new project in the R&D pipeline, we might then consider outsourcing an older drug or older drugs to a CDMO in order to make room for newer projects coming along.

You asked me about APAC. I didn't answer that. A lot of drugs are aseptic or require aseptic filling, I would say there would be a very strong hesitation to use a CDMO based in APAC for markets outside of APAC. If, for example, you're going to sell the drug in China, it might be perfectly fine and smart to have the drug manufactured at a CDMO in China, but if you're marketing the drug primarily in the United States or in the Western world, US and Europe, and especially if it's an innovative drug, you probably would not outsource to a CDMO in Asia.

[00:39:54]

Q: To what extent does cost play a role? Can you assess the cost differences between APAC and the US?

DL: There is a significant cost difference, but innovative drugs, it's your reputation and reputation trumps cost. Again, when I'm talking about generic sterile injectables, if we're talking about an innovative sterile injectable, cost would not be your main focus. The main focus would be quality, and supply and reliability. Again, it depends on which market you're trying to market to. In the US, we have a hybrid system of reimbursement with some being reimbursed by the government for Medicare and Medicaid, but a lot is private pay or private insurance. The pricing, there's not as much pressure as there would be in other countries, other parts of the world where healthcare is paid for by the government, so it's socialised medicine and therefore government is trying to really control costs. Maybe they would focus on, "Let's just focus on the cost of a dose, as opposed to what value is this medicine bringing to society," so, yes.

[00:41:55]

Q: Do you think there is a push for US-based manufacturing? If so, to what extent do you foresee this continuing?

DL: Most innovation for biologics is happening in the United States and there's some innovation happening in Europe, but if you look at the centres for where biologics are being created, developed, it's West Coast of the United States, East Coast of the United States and some in Europe. A small to medium biopharma company, one thing that is important to them is, and I can tell you this first hand, they like to be present at the CDMO when their batches are running, for example, or having in-person project teams, and I know, right now, travel is restricted pretty much everywhere, but I'm talking pre-COVID times, but they like to be present. You want to be located close to your CDMO. Maybe that's not the first criteria in choosing a CDMO, but it's definitely something that it is a consideration and it's the time zone changes, being able to talk to people during your business day, it's pretty important. I would say if there was more sterile injectable manufacturing in the US, the supply would be taken up by the demand that's there.

[00:43:57]

Q: There have been capacity constraints in the manufacturing of specific modalities. How are sterile drug manufacturing demand-supply dynamics playing out?

DL: There's far more demand than supply. I would say aseptic is really growing. There's the desire for the CDMO to have experience working with biologics, for example, as opposed to just small molecules, because there's different handling, the biopharmaceutical company might want disposable filling equipment, their own mixing tanks, that kind of thing, because they're very highly sensitive to cross-contamination and things like that. I don't know that there's a CDMO other than cytotoxics, for example, where that's just environmentally a requirement of how you handle them, but most sterile injectable CDMOs can handle a variety of different therapeutic types. They can handle anti-infectives, biologics, etc, oncology drugs, provided that they're not toxic or that there's not something live in them. I think the increase in biologics and the need for sterile filling is just ever-increasing and there's not enough supply.

[00:46:31]

Q: What have been the effects of biopharmaceutical M&A across drug providers and manufacturers on sterile drug manufacturing?

DL: If there's major consolidation of drug companies, for example, one of the outcomes of that is, typically, a rationalisation or right-sizing of the manufacturing footprint. They'll go through a process of, "We acquired a company. Do we need all of this manufacturing capability, capacity, etc?" There could be manufacturing assets that get sold off and, typically, they get sold off to a CDMO. It could be a sterile plant. Highly unlikely in today's environment, just because there's so much need for sterile manufacturing, but that's one impact, is that, always, when there's major drug company mergers or acquisitions, they're going to go through and evaluate the new manufacturing footprint and, "What do we really need? Let's dispose of some of these manufacturing assets that we don't need." From a CDMO standpoint, so this can be good for CDMOs because they can pick up factories, even sterile factories from drug makers who are looking to dispose of certain of their assets. I think that CDMOs have to be really careful, though, because there have been some that, in my understand, they've gone out and acquired a bunch of different factories in this way, they go out and pick up a couple of factories from different pharma companies or whatnot.

I think this has to be done very carefully because if somebody's selling a sterile plant in today's environment with the demand as it is, there must be a reason. Either it needs tremendous investment and making it contemporary or there have been too many quality issues or regulatory problems and so it's not worth hanging onto it, because it could, in the end, cost more or damage the reputation. I think it has to be done very diligently and carefully. Also, as I said, running a sterile plant and investing in sterile capacity, and equipment and whatnot is very expensive, tens, if not hundreds of millions of dollars in investment. I think that one has to be really careful about if companies are just going around gobbling up these factories and then they need hundreds of millions of dollars of investment to make them contemporary, I don't know how sustainable that model is and how successful that model will be in the end. You need some cash flow in order to make

investments. If you buy a factory and, all of a sudden, you've just got to do remediation and make investments, it's not generating any cash flow.

[00:51:13]

Q: You mentioned regulatory considerations are a key part of the criteria. What regulatory changes do you think should be tracked?

DL: As I mentioned, let's talk about the FDA for a second. The FDA would love to see more automated processing in aseptic filling. They'd like to see continuous processing, no human intervention, use of isolators. As I said, I don't know how practical is because, from time to time, there are issues and human intervention is needed in order to keep the line moving and not lose your drug substance or any of the drug that's in the lines. I think it's just their push is for more automation, more continuous processing, but I think that has to be done very carefully because it could get crazy expensive. Also, if you had multiple manufacturing plants and you decided, "Let's take plant A and make it a continuous processing plant," then it would put pressure on your plants B through whatever, why aren't they as contemporary as plant A? You know what I mean, because you're going to get evaluated and compared to yourself. I think it's baby steps. I think regulators would like it to be all done right now and I think that manufacturers are stepping into more contemporary processes carefully.

[00:53:37]

Q: Can you quantify the cost and price differences across APAC and the US?

DL: We did not use a lot of contract development and manufacturing organisations for sterile in Asia-Pac, except for Australia. Australia would be priced pretty high, as high as the US. Actually, that is as high as the US. Europe can be pretty competitive. I don't have any specifics that I can give, but just based on solid oral dose forms, APAC makes a lot of solid oral dose, it's very inexpensive, they do a lot of the generics, very cost-effective.

[00:55:05]

Q: Would you like to add anything important that we haven't touched on?

DL: No, not really. We didn't talk specifically about capital costs for things, so maybe it would be useful. In my experience, in a Rabs aseptic high-speed filling line, from the manufacturer would be, I don't know, USD 9m or USD 10m, but, in order to make it operational and do the build-out, necessary HVAC, the locks, the air locks, and whatnot and all the validation work, it would end up being a project of USD 30m to get that line up-and-running. I think that's important to know. It seems like, "I can just go buy a machine for USD 10m and we're in business," and that's not really the case. The case is that it's going to cost you a lot more to validate and put in place all of the necessary processes to be regulatory compliant.

[00:56:48]

Q: What are your expectations for capacity and the CAPEX required for labour to increase US capacity?

DL: Thermo Fisher is making investments, which is really good. Maybe some of the other bigger players, like Catalent or others, will make similar types of investments. Again, these are big investments, this is considerable in terms of the money and balance sheet that one has to have in order to make these kinds of

investments, but it could be attractive. I think building a greenfield factory would be very hard to justify financially and the reason is you need that cash flow in order to continuously feed your balance sheet, so that you can make investments. I can just say I speculate that we may not see any greenfield types of facilities going up, but continuing to invest in facilities maybe that exist or expanding the facilities that exist, so that the demand can be met, I think that makes really good sense and it'll be great for the market.

[00:58:36]

MF: This brings us to the end of the Interview, so let me close by saying thank you so much for your input, Dorene. Thank you clients for joining Third Bridge Forum's Interview today. If you'd like to speak to Dorene in a private call or meeting, please let your relationship manager know.

Transcription ends at 00:58:52 of the recorded material