



Mike Slessor
President and CEO
FormFactor

Interview with Gina Bonanno, May 27, 2020

On May 27, I had the opportunity to talk with the President and CEO of FormFactor, Mike Slessor. FormFactor is headquartered in Livermore with facilities and locations in the U.S., Europe and Asia, and is a leading provider of test and measurement technologies to the semiconductor industry worldwide. Mike has served as CEO since 2015 and previously held senior positions at MicroProbe and KLA-Tencor.

We discussed the impact of COVID-19 on their global operations, how they have navigated through the past few months and how he sees FormFactor moving into the future. Mike offered insights about when FormFactor appreciated the potential magnitude of this unprecedented event and why the semiconductor industry is, relatively speaking, well-positioned to respond to the uncertainties going forward.

Mike received his Ph.D. in Aeronautics and Physics from the California Institute of Technology and his B.A.Sc. in Engineering Physics from the University of British Columbia.

QUEST: When did you recognize that the COVID-19 pandemic was going to have a significant impact? Were there early signs that predated the arrival of the virus in the U.S. that you noticed in January or February? When did you begin planning and what kind of scenarios did you consider?

MS: We have about 100 employees in China and by early January it became pretty clear it was a very serious situation there, both in the Wuhan area but more broadly as well. Our China team was in at-home lockdown which lasted 3-4 weeks through the lunar new year. A lot of us were looking back to SARS in 2003-4 which was more contained; that virus didn't really spread to the US. When COVID started to spread throughout Asia and those countries were responding

aggressively, we certainly had some indication it was on the way. At that point, my staff and our second level staff began meeting regularly on it and started closely monitoring what was going on. By early March we began building a contingency plan.

QUEST: The County shelter-in-place order went into effect on March 16 but I understand you were able to continue some essential manufacturing operations. Can you talk a little about how that determination was made? Were any State or County approvals required prior to resuming operations? What fraction of your total workforce continued to work in your facilities?

MS: We were surprised by the Bay Area shelter-in-place orders. It was a Monday and we had about an hours' notice that this was coming down with very little guidance and a lot of ambiguity. Within 12 hours we had shutdown both our Livermore and San Jose manufacturing facilities. Then we started to figure out what these orders really meant. We were communicating with our customers, including our largest customer Intel. As that week progressed a number of things happened—the state-wide order came down, which unfortunately was inconsistent with County orders. Early the following week we had a similar order in Oregon where we also have a significant operation. At the same time, our China facility was coming out of shutdown and our locations in Europe were going in. We worked our way through the details of the orders and working with our customers and industry groups determined that we qualified under the essential infrastructure exemption. We then began planning restarting limited operations at our San Jose and Livermore locations. Locally we started at much less than 30% workforce.

Quest: Did the State or County have to agree with this determination?

MS: The County didn't provide any specific guidance on the exemption and essentially left the determination up to us and our advisors. The State and the Department of Homeland Security were quite helpful because they actually stated what the critical infrastructure was which gave us the confidence we were on solid legal ground.

QUEST: What health precautions did you implement as you brought employees back on site?

MS: We had to reinvent our essential manufacturing operations. First, we decided to allow only critical manufacturing personnel back on site. We performed temperature checks at the entrances, issued masks and gloves, etc. One story

that sounds trivial but wasn't involved access to our cleanroom fab areas which relied on fingerprint sensors. This wasn't going to work under the restrictions so we had to figure out another way to get people in and out of fab. All of this happened under the leadership of our Employee Health and Safety and Operation team over the course of just a week to 10 days. We resumed limited operations in late March.

QUEST: What about COVID-19 testing?

MS: Well, in addition to there being limited access to testing it really didn't fall into our purview. We do temperature checks at the door, and when we bring people in there is a list of questions they answer about their condition and who they've come in contact with. We have turned people away based on their answers. We do this every day for every employee coming on site.

Quest: What happened after the initial resumption of limited essential operations?

MS: Then we had to focus on increasing capacity within the new operating processes. Our customers of course are pulling hard for as much product as they can possibly get. It's a tricky balance—making sure you're building confidence with your employees and customers and preventing cases on-site. We began moving toolsets farther apart and repurposed spaces to increase capacity. We had to come up with new and different ways to keep the workforce safe and socially distanced.

QUEST: In a manufacturing business like FormFactor, strict adherence to process and procedure must be critical to ensure specifications are met in the final product. Were you concerned that your employees could be distracted by the pandemic in general and by concern for themselves or their families? If so, how did you address it?

MS: That's part of the reason for a gradual start—first of all making sure people are comfortable in the environment. We built a track record of no cases, we slowly moved forward and got better working in this environment—it was a steep learning curve. We made it clear we weren't sacrificing fundamental company values—employee safety clearly being one, but product quality being another—people know our fundamental processes must still be adhered to and the pressure to ship product can't allow that to change.

Quest: Did many of your employees express reservations about coming back so soon? Have you been able to provide any special accommodation for those with child or elder care obligations?

MS: Yes, initially some people were uncomfortable coming back either for themselves or for medically compromised or elderly family members. Our initial operations were strictly voluntary and we continued in that mode for about a month. We've since transitioned back to normal attendance, but, where people have a risky situation or a challenge with childcare, we've granted pretty broad exemptions on extending time-off and things like that.

Quest: What level are you operating at now?

MS: We're not at full operations. We've been clear with the public and our customers that we don't expect to be at those levels for quite a while given the restrictions. We can't maximize output in the same way we could prior to COVID-19 breaking out here.

Quest: How will you come back into full operations?

MS: I don't see, certainly for at least the next 12 months, that social distancing is not the right way to be operating a manufacturing business or any business for that matter. As a management team we are concerned, especially as we enter flu season, that there could be another set of restrictions.

Quest: How do you see your ability to meet your customer's demands? Has demand dropped as a result of reductions in business downstream?

MS: This is at the top of our list right now. We're capacity constrained and demand is not greatly changed. FormFactor and the semiconductor industry continues to be surprised at the robustness of demand. If you told me there would be 30% unemployment in a consumer driven economy and that we'd still have this level of demand I'd have said you were crazy. The demand is there—but there's still a fundamental question about the second half of 2020 and into 2021. You can invent about four different realistic scenarios which differ widely but can't bet on any one of them.

Quest: How do you see business going forward?

MS: We operate in a business where forecasting is a very tricky business and even the best prognosticators can be wrong by 20% in any given year. Instead,

we try to figure out how to be as responsive as we can. The semiconductor industry in general will be able to adapt fairly well. By our very nature, the industry has to stay flexible from a demand/production standpoint.

QUEST: For many semiconductor equipment suppliers, servicing and expert customer on-site assistance is key to what they do. Is this also true for FormFactor? How much will any limitations on both domestic and foreign travel affect how you do business?

MS: Of our 2000 employees, about one-third are overseas spread-out over Asia and Europe so we are already conducting a lot of our internal business remotely. Most of our products don't require on-site installation by our personnel which has been true long before COVID restrictions.

We're in a very consolidated industry where your top ten customers are 80% of your revenue. You have years long relationships with the key individuals at those accounts and this mode of operation works ok because you are leveraging these relationships. Over a long period of time, as those actors change out, then it's going to get more challenging.

We will certainly get more judicious with travel. Last year I probably flew 150,000 miles visiting customers, investors, and our sites around the globe; I probably won't get close to 50,000 miles this year. This is an indication of the change and makes sense for the short term anyway, and everyone's doing it.

QUEST: What did you learn about yourself, your employees, and the culture of FormFactor throughout the past few months?

MS: We're fortunate to be operating with a team that is pretty good at hitting curveballs. The semiconductor industry is one that is characterized by constant change—you get used to dealing with surprises and changes—it's in our DNA. Our team has done a great job pulling together, taking advantage of our strengths, and making sure we are continuing to ship quality product and support our customers. In fact, if you drive by our headquarters in Livermore, you'll see that we are actually hiring.

It's a very interesting time, I know I'll look back on this with lots of lessons learned but for now it's fresh with new surprises every day. But it's been really neat to see

the team come together and to continue putting up great financial numbers, all while doing it in a safe and productive way.

QUEST: We really appreciate your time today and your continued support of bringing the Quest Science Center to the Tri-Valley.

MS: I think it's a great step forward for the community and we are supportive. It's certainly a worthwhile endeavor and we look forward to finding other ways we can help.