



Sloan Career Cornerstone Center

Profiles of Chemical Engineers



Thomas Niederkorn

**Core Technology Leader
Procter & Gamble
Cincinnati, OH**

Education:

B.S. - Chemical Engineering, University of Illinois
Ph.D. - Chemical Engineering, Northwestern University

Job Description:

Core technology leader for food mixing applications

Advice to Students:

"A major transition you have to make when you start working is going from being task based to results based. Just accomplishing a series of tasks is not good enough to succeed-you have to achieve results."

Video Transcript 1:

"I think if you're in a technology based company, a doctorate may give you, may give you better background to exceed and to advance further. But you need to keep in mind that with any company you go work for, the degree is basically your ticket in and once you start working there, it's the results that you produce. The second day you're on the job nobody cares any more what degree you've got and what school you came from. It's the results you're now going to, you're not going to accomplish on a day-to-day basis."

Video Transcript 2:

"You find it's difficult to get everything done that you want to, or you find out that you don't have time to do everything that you would like to do. It is a struggle to maintain a balance between work and your family life or your personal life. In that respect, I think it's very important that you work for a company that recognizes and understands that."

Interview:

Niederkorn: My name is Thomas Niederkorn. I work for the Procter & Gamble Company in Cincinnati, Ohio, as the core technology leader for food mixing applications. I've been with the company for about three years. I received a bachelor's in chemical engineering at the University of Illinois in Urbana Champaign, and a Ph.D. in chemical engineering from Northwestern University in Evanston, Illinois.

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Q: What kind of work do you do?

Niederkorn: You might consider the department I work for, the process expertise center for the company. We're the process experts in a number of what we call our 'core processing technologies.' These are fairly common chemical engineering unit operations- liquid mixing, heat transfer, heat exchanges. With each of these technologies, we have a group of people who support the company in that technology. And we have a number of different types of support. We do consulting on actual business projects with our customers. We call them customers, but these business areas are within the company. We do a lot of training and what we call technology transfer, which is taking information that we've learned in one part of the company and reapplying it in other areas. We also do technology development, which is trying to maintain state-of-the-art in a particular technology area.

Q: Who else do you work with on a day-to-day basis?

Niederkorn: We work with a number of engineers from around the world within the company. A lot of the global project work is done through electronic mail or telephone, although some international travel is done. We work with our customer's engineers here in Cincinnati. There are a number of technical centers here in Cincinnati, and we will either go out to their facility or they will come to our facility to work together on executing the projects. And then we'll work within our department. We have other experts within the department who we work with to solve the projects.

Q: What do you like about this position?

Niederkorn: The thing I like about my position-and working for a central organization like we do-is that we support the company across all business areas. You get exposed to a lot of different processes and a lot of different products. So anything Procter & Gamble makes. we can be involved with.

Q: Did your graduate work enable you to be here where you are today?

Niederkorn: The biggest challenge I had moving from school to work was not having enough time to get all of the data you want to make a decision. Because of that, quite often we have to make decisions with little information. A sound understanding of the fundamentals really helps you and guides you when you have to do that. That's one thing a graduate level education does give you. However, a lot of the training is also on the job, so I don't see a bachelor's as necessarily a barrier. It would maybe require more on-the-job training to get you to that point where you can start making decisions with less data.

Q: What prompted you to go to graduate school?

Niederkorn: I originally decided to go to graduate school because I was interested in going into academia. I wanted to become a professor. I enjoyed teaching, the little bit of it I did, tutoring and such, as an undergraduate. However, while I was in graduate school, my desires changed, and I became more interested in actually working in industry. I enjoyed the transition from graduate school to business. To start to actually work on real businesses and have a real business impact was very rewarding.

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Q: Is it difficult to balance your work and personal life?

Niederkorn: It's getting very difficult. Maybe it's a symptom of getting older, but you find it's difficult to get everything done that you want to, or you find out that you don't have time to do everything that you would like to do. It is a struggle to maintain a balance between work and your family life or your personal life. In that respect, I think it's very important that you work for a company that recognizes and understands that. One of the things I like about Procter & Gamble is that they stress very much that you shouldn't let your work life intrude too much in your personal life and, that you have a family and children and things, and that they are important as well.

Q: What are some of the pros of working for a large corporation?

Niederkorn: A lot of people are uncertain about whether they want to work for a large company. One thing I really like about working with a large company is the business impact that you can make. One of the very first projects I had out of school that I completed was worth millions of dollars to the company. So you go from a situation in school to work, where you're immediately given responsibility to work on very high-value projects. I really enjoy that; it motivates me a lot. It's kind of nice to come home at the end of the day and know that you had a \$20 million impact on a project you just completed. The other thing that's becoming probably more and more common is globalization. Another aspect I like about my job with P&G is that we also support the company globally outside North America, so we get to work on engineering projects around the world—designs that you are coming up with are being executed and implemented across the globe.

Q: What is your least favorite aspect of your job?

Niederkorn: One of the hardest parts is managing your workload. This may be particular to my organization, since we support the company across all areas. We basically have more work than can possibly be done. So you have to make priority calls. It took me a long time to learn how to say no to some of our internal customers—just because of resource constraints. We just didn't have enough people or enough time to do everything. And that's a tough transition to make.

Q: How do you learn to make those tough calls?

Niederkorn: In the beginning, at least, you rely a lot on your supervisor. We also have some tools that help us evaluate projects. We're going to work on the projects that have the most benefit to the company, so that helps us make the priority calls.

Q: How did you find this job at Procter & Gamble?

Niederkorn: I learned about the job through a posting with the chair of the chemical engineering department, and I sent them a resume. It was kind of an interesting situation, because the job description was almost an identical fit to what I had done for my thesis. So there was some obvious common ground there. From that, we arranged an interview and the offer came.

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Q: What made you decide to go into chemical engineering?

Niederkorn: Chemical engineering was sort of a natural fit for me. I had been interested in engineering-originally aeronautical or aerospace engineering. I had a fascination with planes when I was a kid. I had a lot of model airplanes. But when I got into high school and got more involved in chemistry, I had a natural liking to chemistry. I also liked mathematics. So when I put those things together, chemical engineering seemed to be the way to go.

Q: What about the transition from academia to the workplace?

Niederkorn: I think the most difficult thing for me coming from academia into industry was not having all the time to get all the data you needed to make decisions. When you're in the academic environment, you're trained to explore all the variables and come up with a deep scientific understanding of what's happening. Often in businesses, because of time schedules, you just don't have the time to do all of that. Also, as a scientist, you sort of realize that you're no longer doing research for the sake of scientific pursuit. You're now doing research tied to a business area. That can also be a difficult transition for some people coming from graduate school.

Q: Did you participate in any co-ops or internships while you were an undergraduate?

Niederkorn: I did a number of summer internships as an undergraduate-one with a personal products company, one with a consumer products company, and then two internships with a petroleum company. It was definitely an experience I would recommend to any undergraduate. It gives you an insight into how industry works, how relationships with supervisors work, and what types of jobs you might be interested in doing.

Q: Is there anything that drew you towards consumer products?

Niederkorn: The one thing I felt that is interesting about a consumer products company is that you get to see the results of your work every day when you go into the grocery store. You can see the products that you worked on, projects that you've worked on, especially when a new product comes out and you see it on the shelf for the first time. You feel a bit of pride when you look at that product and say, 'I had something to do with making that happen.'

Q: What advice would you offer to someone interested in chemical engineering?

Niederkorn: When you're in school you're trained to do certain tasks. As you learn the technology, as you're given assignments, you're trained to complete the assignments for the sake of completing the assignment. A major transition you have to make when you start working is going from being task based to results based. Just accomplishing a series of tasks is not good enough to succeed-you have to achieve results. And you need to start thinking about your work processes and the decisions you make every day on the type of activities you do. Are you doing an activity just because it's a task that needs to be done, or are you doing an activity because it's going to get a business result and add value to the company?

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Q: What is a typical day like for you?

Niederkorn: Each day is kind of different from the day before. It's hard to define a typical day. Initially, it involves interacting with customers, either by telephone or electronic mail. I probably spend an hour a day with electronic mail. Because of our global customers, it's the most efficient way to communicate. I spend time talking to, or communicating with, our customers either by telephone or electronic mail. I work on computer models and computer programs. And a lot of meetings.

Q: What kind of meetings do you attend?

Niederkorn: Either face-to-face meetings, or we're doing a lot more video conferencing now to cut down on travel costs. But meetings are usually necessary to drive consensus on a project. When you deal with a diverse organization, you have a lot of people in various locations who are working together. You need to get together and talk about the project goals. One thing that you learn in industry very quickly is that whenever you have a meeting, you always come out of the meeting with who's going to do what by when. It's very important to get commitments from people and when those commitments will be completed.

Q: Do you have to put in a lot of overtime to get your work done?

Niederkorn: I think a lot of it has to do with-if you look at different personalities in the workplace-how productive people are during the day. Some people may work 10, 12 hours a day, but you may also notice that those people spend a little bit more time in casual conversations by the water coolers and so forth. So depending on your level of productivity, I wouldn't necessarily say that a lot of overtime is required.