



Interview with Nancy Shea Global Vice President Ashland Specialty Ingredients



Nancy is responsible for the strategic plans, innovation portfolios and marketing programs, as well as the design of robust innovation portfolios for the 9 distinct industries within Ashland specialty Ingredients, one of three commercial units within Ashland, Inc.

Nancy started her career at Kraft Foods where she led the company's new product portfolio and launched over \$700 million in new products. She was the Chief Marketing Officer for World Kitchen Inc., the makers of Corelle, Corningware, Pyrex and other branded household products.

Nancy has a BS degree from Iowa State in Human Nutrition and Food Science, and an MBA from the University of Minnesota. She was a guest lecturer on innovation at the Northwestern School of Business. Nancy can be reached at nancyjshea@gmail.com.

Interview conducted by Doug Berger, INNOVATE, doug@innovate1st.com

Doug: Please start us off with brief overview of Ashland and its businesses.

Nancy: Ashland has repositioned itself as a specialty chemicals company and the Ashland Specialty Ingredients commercial unit (ASI) is expected to lead this effort. Within ASI, we manufacture and sell specialty chemicals for personal care, i.e. hair, skin, oral, as well as paints and coatings, energy, construction, pharmaceuticals and nutrition. In addition, we are building new platforms in energy storage, medical technology and agriculture.

Doug: Let's talk about topics of innovation that are not regularly covered, in particular the strategies of innovation. What insights do you have on how to influence the C-suite in their leadership of innovation?

Nancy: We all know that you have to build support at the very top, and the CEO and president have to be 150% behind your innovation plan. But it does not necessarily start with that level of support, which is why I emphasize that you have to build it. The senior innovation officer needs to continuously ask, "What do executives really need to understand about innovation?"

While this is subject to change, it is important that you gain agreement up front on the scope of your innovation strategy, meaning are you primarily going to focus only on short-term line extensions, or are you creating a portfolio of longer-term innovation? You have to build the understanding that the time, investment and capabilities required for driving breakthrough innovation are very different than line extensions. This is not a one-time conversation.

Everyone has a different level of risk tolerance. Calming down fears is essential. It's important to understand what makes people anxious when they talk about innovation so that you can address that right up front.

If you are thinking that innovation is going to grow your business by 50% that is probably out of line. Instead, you should be talking about how innovation can help your company achieve its financial goals. I want to help executives become students of what it will take to have innovation drive 20-25% of their top-line sales, and possibly 10%-15% of their bottom line EBIDTA. What does it take from the perspective of an investment in people? In intellectual property? In external networking? In a capital manufacturing footprint? Then they can start to wrap their head around what it really takes to get there. It goes far beyond thinking that you can simply come up with five line extensions and achieve the goal.

The next piece is to understand not to tie all investment into the short-term financial performance. Breakthrough innovation takes time and consistent investment to deliver a sustainable new business.

You also need to advance the thinking regarding metrics and measurable objectives that match the scope. That thinking may start with achieving sales each year from new products. You need to build accountability throughout the leadership team, from manufacturing and supply chain to Finance, Sales and R&D. The best way to do that is to incorporate it into goals. Sales and Marketing would be asked not only to drive sales once launched, but also to have specific metrics around customer engagement so that you are constantly collaborating with your customers and bringing back unmet needs. R&D gets measured on speed to market and external collaboration, such as open innovation, or a strong network of experts and capabilities that we don't have internally. Other groups need to own the cost structure, including where we manufacture with global considerations.

As a senior management team, they have to understand and truly govern or guide innovation within the company. You have to consider whether you are allowing employees enough time – and creating the right environment – to invent, to be creative, and to build trusting ways of working together. We want people to feel comfortable offering their ideas and thoughts without fear of being immediately shot down. It is far better if the senior leadership is actually thinking about, "How could we invent a very optimal, creative, inventive thinking and collaborative workplace?" Then they look for the people who have the passion and capabilities to drive that. My role is to build all of these new understandings.

Doug: So, where have you found that executives either have a misunderstanding about some of the fundamentals of innovation, or they have a lack of understanding about the roadmap?

Nancy: Senior executives need to agree with your Innovation portfolio strategy. This means you need to have alignment of how much the company wants to invest in line extensions and how much they are willing to invest in the more difficult to invent "Big Ideas". Asking them to invest in people's time, in science and equipment to develop something bold or even breakthrough is a major decision. Senior Executives should be as supportive of the longer term "Big Ideas" as they are the near term line extensions and to achieve this support, you need to have frequent discussions on the long term projects and the progress you are making. This helps them understand the level of risk at each stage of development and to measure if they are willing to invest in the projects. We want to get to the understanding that there is a maximum spend required to achieve the "Big Ideas" but it is played out over time.

Doug: One of the expressions you use is “create a cycle of success.”

Nancy: Yes. Have a solid strategy that works from what you do best today. I do believe in “grow from your core.” What is your core business? What are you known to be the best at in the marketplace? Then, like rings on a tree, start to grow outward and ask, “What else could we do with that core competency?”

B2B providers like Ashland need to remember that you are considered an ingredient supplier until you prove yourself in a different frame of mind. If you can actually enlighten your direct customer about the end market, and you can improve your customer’s portfolio, you can shift the frame and discussion. For example, we set out to understand how consumers are looking at skin care. We developed insights based on our core. We started to share our learnings with direct customers. We spoke with R&D and marketing and built a partnership with the group that leads our customers’ innovation. Going back to the cycle of success, we brought them new information that we uncovered with our end-user research. They liked it and they said, “Okay, let’s start a project.” And we invented new products from that starting point. We showed them what they could be doing. Then we all shared in the value.

Doug: Insights into the problems and needs of the entire downstream chain through to the consumer affected your ability to be more successful with direct customers.

Nancy: Exactly.

Doug: Let’s come back to how you positioned the financials for innovation in a way that took into account the loss aversion, risk aversion, and short-term focus.

Nancy: Each of our industries has an innovation portfolio. There is a percent that are line extensions, which are fairly predictable with a high-confidence business case. For those, there is a minimum net present value (NPV) target. We still do the rigor up front, even on the smallest of these projects. We talk a lot about the assumptions that go into your business case, as well as the targets. And we meet on a monthly basis as a leadership team to review each of the innovation products. Reviewing the assumptions is critical.

As you move in the portfolio and you start to get to higher risks, like breakthrough innovation or totally new spaces for us to play in, we find that doing the NPV or the same financials keeps us from being inventive. After all, at that point you don’t truly know those numbers. What we do instead is put together a very early business case identifying the major assumptions and risks that lend the most grist to this project. We can know that the benefit and the size of the market potential make it worth moving into the next step. As a collective leadership team we question, “Do we agree that we have the risks identified?” Then, we lay out a plan that captures how we are actually going to address each of those risks in the next few months. Those monthly reviews are communicating where we are in solving for that risk.

Doug: When you think about the different stages that a new chemical formulation, or a new chemical benefit goes through, from very early stage science or unmet need all the way through to being scaled into the market, what are the natural phases that you think of as the kind of critical proof points to make it ready for the next round of investment?

Nancy: First we put together a preliminary business plan. There is no prototyping yet. We go out and we do an IP survey, so we know what the patent landscape looks like. We collaborate with external experts in the industry or market. We survey the competitive landscape. Who is in the space and who could possibly be a player? We get the buy-in that this does look like a growing market that we should be in.

Then the scientists will work with experts, either within or outside Ashland, to develop very early-stage prototypes. In parallel, marketing and sales will identify the key performance criteria customers need; prototypes have to hit within that range. If we begin to see success in those prototypes, then we are ready to regroup and bring it forward.

We talk through what it will take to go to the next level of prototyping. It's really an iterative type of process. At the second or third iteration, you have a pretty good idea as to whether we can develop the right chemistry. Also, we have a feel for the cost and manufacturing systems, and we are starting to frame up the real business case for this product line.

Doug: Do you find it relatively easy to get customer input and involvement during this very early stage?

Nancy: Within our current industries, yes. It depends on the level of confidentiality within which customers will work with us. We do have the relationships and companies with whom we can work really well. In the transformational white space that we are trying to penetrate, we have been good at identifying partners, even in that up-front stage. Many times, we are working with partners who themselves want to make change happen, and they are also looking for partners. You do have to protect yourself legally, but you also have to realize that most of the companies that we work with are just like us; they want to make something new and better for the world and make it more financially valuable.

Doug: One of the challenges in your industry is that you really want to launch at scale, but then there is a big, up front capital expense. What about that early market entry? What practice have you found to manage the financial aspect so that you are not letting your capital commitment get ahead of your certainty level?

Nancy: We have found some interesting partners around the world that have the production capability. We might do a joint venture and see how it works before we agree whether we are going to expand. We start in one market and, as that goes up, we will go into another market.

You have to be entrepreneurial about that and both patient and agile. For instance, if you get a bunch of "No's" just sit back and re-evaluate, "How else can we do this?" Don't think that it has to be done in the same way as if Ashland were building the plant. We build Cadillac's, the best-in-class plants. When you're doing these joint ventures, you want everything to be safe and high-performance, but you don't necessarily have to build a Cadillac.

Doug: How has the narrative around bolder innovation evolved over the years at Ashland?

Nancy: A lot of impact came from talking about the market unmet needs, defining that and how we, Ashland with our chemistries, could deliver a higher-value product than exists today. With one of our new incubators we chose to do more work on understanding the key problems with the existing product lines. By doing that work we uncovered three problems that were extremely important for customers to solve. We showed them prototypes of our chemistry that can solve all three problems. We are solving these very major needs that nobody else can because we combined different chemistries. Now our customer is telling us we are the only supplier with all this chemistry." We have our executive team saying, "Wow, you have absolutely leveraged our chemistry portfolio and toolkit. We love it. We are going to invest in more of these types of ideas!"

Doug: Many B2B companies are doing "innovation push" into the market. You discovered that working from unmet customer needs gives you more accuracy in what you innovate, and it provides a more compelling narrative with the senior executives of the company. There is something so simple, elegant and insightful about that.

Nancy: It could have played a different way. When customers told us their top three needs, we conducted research to validate them. We could have come back and said, "We do not want to fumble with these" or "Here are two others that we discovered in our research." We play it both ways. That is where you build that collaborative strategic partnership. Customers know that you are in it for more than just the short term. We typically bring them two, if not three, generations of solutions to the problem. For our customers, the roadmap is often all about timing and getting to the market first and fast. While we are helping them to do that, we are also showing them the next and the third generation to improve price performance.

Doug: Please share some of your accomplishments.

Nancy: A year and a half ago we launched a special powder for the coatings industry. It solves the problem of the lengthy time it takes for coatings, such as paint, to thicken during manufacturing. As our scientists watched the process at many different customer sites, they began to think about how they could shorten the process so that paint manufacturers could make a higher-performing paint in less time. Our scientists created a new thickening agent that could be added in the middle of the process to reduce processing time, water consumption and energy. It resulted in a direct cost savings and more throughput.

Additional accomplishments include:

N-DurHance™ A1000 launched this year, which fits the bill for hair care. The problem was that current hair conditioning technologies impart conditioning, i.e. shine, smoothness, alignment, and no-frizz for only one shampoo-condition cycle. Consumers want longer lasting conditioning and they want to restore hair to an undamaged state. N-DurHance 1000 extends conditioning for up to five shampoo cycles with strong "wet stage" signals that the hair is really repaired.

Chronogen (™) is a biofunctional that is used in a very well-known cosmetic product that addresses the consumers' still un-met need to reverse the signs of aging without surgery.

AquaTherm Cold is a cement mortar additive that provides improved cold temperature setting time, workability, and anti-sagging. Most cement mortars have issues when the temperature falls below 5° C. Aquatherm Cold enables contractors to work in lower temperatures without sacrificing performance. This enables them to extend the construction season for 1-2 months.

You can see how all of these solutions were aimed at problems, and problems throughout our entire downstream value chain through to the consumer. We built our Consumer Research Lab in the Bridgewater, NJ, specifically to test early prototypes and products with end users.

Doug: Thank you for those insights. What concluding comments would you like to make?

Nancy: I tend to think that leading for innovation requires insight into 5 key principles: first, start with an innovation vision. Then truly imagine all manner of disruptive events that could impact your business and plan for these through innovation. Second, purposefully incorporate both financial and risk management into your innovation plans. Third, build alignment at the top and across the organization, and hold people

accountable via annual metrics. Fourth, empower everyone in the organization to be innovative, trust them with time and tools and create the right working environment. Fifth and last, learn from your successes and failures and share that learning constantly. When I focus on these five principles, I have more success and, frankly, more fun.

